

CrossTalk



April 2026

Serving Amateur Radio For A Really Long Time, Dude!

Issue 67 : 04

A 2026 Club Officers

President :	Jonathan Pearce WB2MNF	Trustees - 4 Year Term	
Vice President :	Ronald Block NR2B	Sheldon Parker K2MEN	(2023-2026)
Treasurer :	John O'Connell K2QA	Len Rust W2LJR	(2024-2027)
Recording Secretary :	John Zaruba Jr K2ZA	Earl Moore KC2NCH	(2025-2028)
Corresponding Secretary :	Michael Resnick N2WOQ	Greg Ciraula K3GC	(2026-2029)

Directors - 3 Year Term

Al Arrison KB2AYU	(2024-2026)	Frank Romeo N3PUU	(2025-2027)
Bill Price NJ2S	(2024-2026)	Chris Prioli AD2CS	(2026-2028)
Jeffrey Garth WB2ZBN	(2025-2027)	James Wright N2GXJ	(2026-2028)

General Membership Meeting

Wednesday, April 01, 2026 @ 1900 Hours
In-Person & **ZOOM : 982 4039 1944, 091084**

Tech Saturday Forum

Saturday, April 04, 2026 @ 0900 Hours
W2MMD Clubhouse

GCARC Ham License Exam Preparation Classes

Starting Monday, April 06, 2026
W2MMD Clubhouse

License Testing Session

Thursday, April 09, 2026 @ 1900 Hours
W2MMD Clubhouse

Board of Directors Meeting

Wednesday, April 15, 2026 @ 1900 Hours
W2MMD Clubhouse

Fox Hunt 36 - Spring Fox Hunt

Sunday, April 19, 2026
Somewhere In Gloucester County

Dinner @ The W2MMD Clubhouse

Wednesday, April 22, 2026

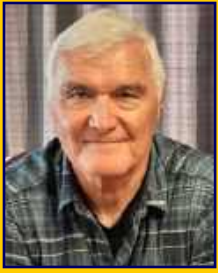
Tuesday Afternoon 2M Net @ 1200 Hours

Thursday Night 2M Net @ 2000 Hours

Monday & Thursday Night 40M Net @ 1900 Hours
7.165 MHz (+/- 10 kHz)

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President's Letter

Jon Pearce WB2MNF



April 2026

The snow has finally melted, the Clubhouse is open again, and Club activities are returning to normal! We're still occasionally battling high winds that force us to lower the HF antennas, but everyday operations are back on track.

Clubhouse Activities and DMR/YSF Talk Group Updates : The March Tech Saturday Forum session on *“The Magic of WSJT”* drew about 15 members and was a big success. Several stayed afterward to ask follow-up questions about SDR usage and related topics. This in-person session nicely complemented **Steve Farney W2SEF**'s recent Zoom presentations on actually operating FT8 and other WSJT-X modes, giving members a well-rounded understanding of both the underlying technology and its practical use.

On Saturday, March 21, 2026, we held a DMR refresher for members wanting to review the basics, explore new features, and update their radio configurations. The main goal was to encourage more participation on our Club DMR talk group and the KD2LNB repeater at Rowan University. We also highlighted the cross-mode connectivity of Yaesu System Fusion (YSF) that **Vinnie Sallustio N4NYY**, **Tony Starr K3TS**, and **Herb Dyer KT2Y** regularly use to connect from different locations - showcasing the power of digital modes to bridge distances and link systems seamlessly.

VHF Station Progress : Now that the weather is conducive to outdoor work the VHF tower crew (**Al Arrison KB2AYU**, **Frank Romeo N3PUU**, and **John O'Connell K2QA** along with **Earl Moore KC2NCH**) put in a couple of long afternoons at the Clubhouse. Last weekend they drilled new holes in the floor in the VHF/UHF/Satellite Room and installed individual plastic conduit pipes to route coax and rotator cables from the VHF and satellite towers. This upgrade replaces the old single large pipe that previously carried everything into the VHF room. The new setup provides more separate pathways for cables, helps keep pests out, and offers better protection from outdoor temperature extremes. This past weekend they installed a large box at the base of the 89 foot microwave tower that will house power and network adapters as well as the connections to the feed lines going into the Clubhouse. All of this work supports our larger ongoing project to fully install and activate the VHF/UHF antenna systems.

Upcoming Tech Saturday - Basic Skills Session : Tech Saturday Forums continues to be one of our most popular activities, and we're expecting strong attendance for the next few sessions. On **Saturday, April 4, 2026**, **Chris Prioli AD2CS** will lead a hands-on “Basic Skills” class focused on building connectors correctly. Participants will assemble PowerPole connectors (and similar types) plus a proper PL-259 jumper cable, with Chris sharing all the best techniques and pro tips. Note : This session is already full, but if there's enough additional interest, we can schedule a repeat.

GCARC WSPR Network Project Launches in May! : Starting in May, we're kicking off an exciting group project : building and operating personal WSPR transmitters to study propagation. Each participant will construct a small WSPR beacon for various HF bands (whatever bands you already have antennas for, or 30 meters if you'll need to build a new antenna - or 10 meters for Technician licensees - using a Raspberry Pi and a TAPR “Hat” board.

President's Letter - Continued on page 3

You'll take your setup home to run from your own antenna - or we can help you build one. Once operational, we'll monitor global reception reports on PSK Reporter and compare results across stations with regular reports on the Skunkworks website. This project will include multiple Saturday Tech Sessions covering the WSPR process, assembling the devices, antenna design and propagation, and will provide a common thread for learning about many aspects of ham radio HF operation. Look for the full announcement and sign-up details on **Page 48**.

Pushing the Technical Envelope : While Tech Saturdays remain a Club favorite, choosing topics that appeal to a broad audience can be challenging. In the coming months, we'd like to experiment with a few more advanced, specialized sessions that may attract a smaller group but help expand the Club's technical knowledge and capabilities. Possible ideas include :

- **Amateur DATV experiments on 70 cm**
- **Using the Discovery dish for radio astronomy or Inmarsat reception**
- **Exploring higher-end SDR platforms such as Hermes or Adalm-Pluto**
- **Advanced DMR techniques like direct calling or single-frequency repeaters**

We'll be gathering feedback and may schedule some of these as separate (non-Tech Saturday) events for those who want to dive deeper. Stay tuned!

73 de Jon WB2MNF



Welcome New Club Members :

- Michael Beach KE2HRH, an Amateur Extra Class from Maple Shade, NJ.
- Russell Stevenson KE2HVQ, a Technician Class from Sewell, NJ.

We are glad to have you as a member of the Club and hope to see you regularly at Club meetings, events, and activities. Hope to see you at :

- The April 1st General Membership Meeting, either in-person or on ZOOM
- The April 4th Tech Saturday Forum @ the W2MMD Clubhouse
- The Board of Directors Meeting on April 15th
- The Dinner @ The W2MMD Clubhouse on April 22nd

We also hope to “SEE” you on the “AIR” on the following nets :

- Sunday Night Skywarn 2 Meter Net @ 1930 Hours
- Sunday Night ARES 2 Meter Net @ 2000 Hours
- Tuesday AfterNoon 2 Meter Net @ 1200 Hours
- Monday & Thursday Night 40 Meter Nets on 7.165 MHz (+/- 10 kHz) @ 1900 Hours
- Thursday Night Rag Chew 2 Meter Net @ 2000 Hours

All 2 Meter Nets are on our 147.180 MHz (PL 131.8) repeater or on EchoLink W2MMD-R.

So you find our website confusing, can't find anything

I have created a page called “Quick Links”

**On this page you will find “Buttons” to some the most popular pages
I will add more as time goes on, but I hope this helps your journey navigating
through your Club Website!**

<https://gloucestercountycastle.weebly.com/quick-links.html>



General Membership Meeting

Wednesday, April 01, 2026 @ 1900 Hours

Pfeiffer Community Center

Simulcast Live Via ZOOM : **Meeting ID : 982 4039 1944; Passcode : 091084**

Join ZOOM Meeting Link : <https://bit.ly/4s67geS>

Go to : <https://gloucestercountync.weebly.com/2026-content--activities--resources.html> to download the ZOOM log-on instructions PDF

K3LR Contest Station

By Timothy J. Duffy K3LR

Tim Duffy K3LR, CEO of DX Engineering and the driving force behind the high performance contest station K3LR, will be our April featured speaker. K3LR is sited on a 16 acre antenna farm in West Middlesex, PA (east of Youngstown, Ohio) supporting 14 towers and more than 50 antenna systems covering 160, 80, 40, 20, 15, and 10 meters. The station's high band capability includes steerable OWA Yagi arrays; low band performance is supported by large phased arrays and a custom vertical Yagi; comprehensive receive arrays and noise mitigation systems to optimize weak signal reception.



Tim's station is equipped with a bank of high performance transceivers selected for multi user reliability and superior receiver performance, paired with custom single band amplifiers engineered for sustained contest duty. Advanced rotator controllers, RF switching systems, and remote monitoring tools enable rapid reconfiguration and precise antenna control, while a 50 kW on site generator provides automatic backup power to ensure uninterrupted operation.

In addition, Tim maintains continuous receive monitoring system via CW Skimmer and Reverse Beacon Network links to support real time situational awareness and pileup management. A typical contest crew is comprised of approximately 12 on site operators supported by technical and logistics staff, drawn from a broader roster of more than 200 contributors. Each band is staffed by a two person team - one running and one searching - coordinated to operate up to six bands simultaneously; electronic transmit interlocks and strict timing protocols prevent on band interference and ensure rule compliance. On site housing, professional catering, and a dedicated logistics coordinator sustain operator readiness during 48 hour contest windows.

During this month's Zoom presentation, Tim will present an overview to his dream station and it's dominance in the world of contest stations. This will be an eye-opening presentation.



New Members Support Group & Discord Channel

- Organized By Jim Beury KE2DRN
- Objective : To focus Club resources on the needs of newly licensed members
- Supported by “new_members” Discord Channel



Additional Support :

- Saturday Morning @ The W2MMD Clubhouse
- GCARC@MAILMAN.QTH.NET Club E-mail Reflector
- E-Mail President @ w2mmd.org



Be A Club Volunteer!

2026 / 2027 Clubhouse Construction Volunteer Projects :

Shed : Build Ramp

Clubhouse :

- Build Ramp
- Replace Interior Front Door
- Power Wash Siding
- Replace Back Steps

Lightning Protection Project :

- Complete grounding rod installation around Clubhouse and Towers

Install Utilities On New Front Parking Lot Pole

Install Antennas On New VHF Towers



Tech Saturday Forum

April 04, 2026 @ 0900 Hours

W2MMD Clubhouse

CLASS FULL

Forum Topic : Hands-On Connector Installation Class

The upcoming April 4, 2026 Tech Saturday Forum topic is one that may be of widespread interest throughout the Club. This month, we will be presenting a training session that will address some basic skills that all amateur radio operators should possess. Specifically, we will provide hands-on training on the installation of the following :

- **Coaxial Cable Connectors :** Each attendee will construct a three-foot patch cable terminated with PL-259 connectors at each end
- **Anderson PowerPole® Connectors :** Each attendee will construct a two-foot power cable that has Anderson PowerPole® connectors at one end
- **Standard Wire Terminals :** Each attendee will finish the power cable started in the step above by installing ring terminals to the wires in the power cable, enabling this cable to be used to connect a typical ham transceiver to a typical bench power supply



This session will provide the attendees with the basic skills necessary to complete the tasks above, including the selection of the correct terminals as well as selecting the proper tools for the task at hand.

Each attendee will leave the session with two completed and usable cables. There will be no fee charged to the attendees, as the Club leadership believes that the skills being taught are basic skills, and as such, this program is being funded by the Club.

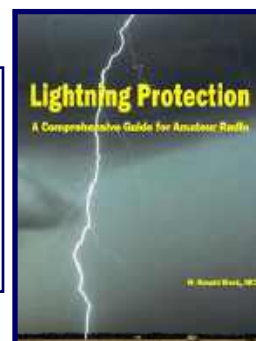
However, registration is a necessity, as we must be able to prepare in advance, and to have adequate supplies on hand for the number of attendees anticipated. Class starts at 0900 Hours sharp!



Class Is Full



Lightning Protection :
A Comprehensive Guide for Amateur Radio
Author : W. Ronald Block, NR2B
Contact : ron@wrblock.com
Website : www.wrblock.com



GCARC Monthly VE Exam Testing Summary - March 2026

By Chris Prioli AD2CS

The March 2026 GCARC VE Session was held on Thursday, 12 March. The VE session was held at the W2MMD Clubhouse and was administered by Volunteer Examiners as listed below, with **Chris Prioli AD2CS** serving as Team Liaison for the event :

- **Joe Gadoury N2JJG**
- **Jeff Garth WB2ZBN**
- **Mike Resnick N2WOQ**
- **Mike Thompson KG4JYA**

The were two candidates, one who sat for his Element 2 (Technician) exam, and one who sat for his Element 4 (Amateur Extra) exam. Both candidates were successful in their endeavors. These candidates were :

- **Mike Beach KE2HRH, new Amateur Extra from Maple Shade, NJ**
- **Russ Stevenson KE2HVQ, new Technician from Sewell, NJ**

The VE Team proctored the exam session using completely electronic methodologies. This means that the candidates completed the exams online, and that all grading and submissions were done online as well.

The next regularly scheduled VE session will be held on Thursday, 9 April 2026, at 1900 Hours at the W2MMD Clubhouse. The VE team will be using the ExamTools system to its fullest capability, within our current technological means.

It is important that all test candidates going forward will be advised, whenever possible, to pre-register and pre-pay for the exam online. Specifics of that process are explained at : <https://veteam.w2mmd.org>

GCARC VE Team Historical Summary				
	Technician Class	General Class	Amateur Extra	Total
2016	18	8	6	32
2017	22	19	4	45
2018	29	23	5	57
2019	16	10	8	34
2020 *	8	4	1	13
2021 *	8	5	1	14
2022	22	15	18	55
2023	20	18	10	48
2024	22	12	6	40
2025	24	14	6	44
2026	2	0	1	3
2027				
2028				
2029				
2030				
Totals	191	128	66	385
	* Pandemic	Period		



Fox Hunt 36 - Spring Foxhunt

By Jim Wright N2GXJ

Something special happens **Sunday, April 19, 2026 at 1pm**, and we'd like for you to join in! This is the date and time of the next GCARC radio fox hunt. Reserve the date now. What a great way to kick off the Spring Season!

Never been in a fox hunt before? No problem! This family friendly event is great excuse to get some fresh air out of the house together. Part of the fun is in the experience, learning and improving by trying new things hands-on in the field. Care to give it a try? Please feel free to reach out to me if you have any questions. My number and email address are in the Club Roster. These really are fun events. You should plan to join in, if you can!

There will be more information at the April 1, 2026 General Membership Meeting.

Al Arrison KB2AYU, will be the "*fox*", hiding the transmitter this time. He'll send an email to all Club members via the Club's email reflector the day before with further details.



Mt. Airy VHF Radio Club Upcoming ARRL Night Announcement

The **Mt. Airy VHF Radio Club (Packrats)** will be holding their annual ARRL Night General Meeting on Thursday, April 16, 2026. The meeting will take place at the Ben Wilson Senior Activity Center in Warminster, PA starting at 7:30 PM EDT. This meeting is open to members of all local area Amateur Radio Clubs.

ARRL Speakers and Attendees at the April meeting will be :

- **David Minster NA2AA, CEO and Secretary of ARRL**
- **Josh Johnston KE5MHV, EmComm and Field Services Director**
- **Marty Newingham, Atlantic Division Director**

The meeting site address details are :

- **Ben Wilson Senior Activity Center**
- **580 Delmont Avenue**
- **Warminster, PA 18974**

This is YOUR chance to hear from the ARRL and Atlantic Division and ask questions. All local Radio Clubs are cordially invited to attend.

Please RSVP to president@packratvhf.com if you plan to attend (strictly for headcount purposes) and if there is a specific topic you would like the speakers to address during the meeting.

We hope you will join us for this very special evening with our National and local ARRL leaders.

Phil Miguelez WA3NUF

President

Mt. Airy VHF Radio Club, Inc.

<https://packratvhf.com>



DAs & DITs

>> Congratulation to **Steve Farney W2SEF** on being appointed the new Gloucester County Emergency Coordinator.

>> **Saturday, May 30, 2026** is the date for the **2026 GCARC Family Picnic**. It will be at the **Ella Harris Recreational Park** in Mullica Hill, NJ. About a mile or so down the road from the Clubhouse. More information on the website and in the May 2026 CrossTalk.

New ZOOM Guidelines For General Membership Meetings

To enhance the experience for everyone attending the General Membership Meeting, whether in person or via Zoom, the Board of Directors has established some guidelines for Zoom participants. These guidelines are designed to ensure that everyone can focus on the meeting while also allowing Zoom participants to interact before the meeting starts.

Here are the guidelines:

- **Before the Meeting :**
 - ◆ Zoom participants are welcome to keep their cameras and microphones on to chat among themselves before the meeting begins. During this time, the Zoom audio will not be broadcast to the general audience, and local audio will not be connected to the Zoom meeting.
- **During the Meeting :**
 - ◆ Just before the Pledge of Allegiance, a reminder will be posted for Zoom participants to mute their microphones and turn off their cameras. This ensures that all Zoom participants will see the meeting camera instead of another Zoom participant's camera. Participants in the room never see the cameras of the Zoom participants.
 - ◆ Zoom participants can use the "**Raise Your Hand**" button to ask questions or make comments at appropriate times during the meeting. The Zoom operator will notify the moderator, who will recognize the comment or question at the right time.
- **After the Business Meeting :**
 - ◆ The Zoom audio will be muted immediately after the business meeting concludes to prevent any disruptions to the in-person audience from the PA speakers.

Please adhere to these guidelines to ensure a smooth and enjoyable meeting experience for everyone. Following these protocols will help us maintain an inclusive and focused environment for both in-person and remote attendees. Thank you for your cooperation!

A Club that goes above and beyond for their communities and for Amateur Radio, is what defines a Special Service Club (SSC).



They are the leaders in their Amateur Radio communities who provide active training classes, publicity programs, and actively pursue technical projects and operating activities.

GCARC has been an ARRL Affiliated Club since February 4, 1960 and an SSC since April 2010.



Regional (Atlantic & Hudson Divisions) Hamfests & Events

April 11, 2026 : Chenango Valley Amateur Radio Association, 2026 CVARA Bullthistle Hamfest, St. Bartholomew's Parish Center, 81 East Main Street, Norwich, NY. www.cvara.net

April 11, 2026 : Warren County Radio Club, W2WCR Spring Swap Meet 2026, Aviation Mall, 578 Aviation Road, Queensbury, NY. www.w2wcr.org

April 18, 2026 : Drumlins Amateur Radio Club, 2026 Drumlins Hamfest, Palmyra VFW Post 6778, 4306 Route 31, Palmyra, NY. www.drumlinsarc.us

April 18, 2026 : Sussex Amateur Radio Association, Delmarva Amateur Radio & Electronics Expo, ARRL Delaware State Convention, Sussex Academy, 21150 Airport Road, Georgetown, DE.
www.radioelectronicsexpo.com

April 19, 2026 : Two Rivers Amateur Radio Club of McKeesport, 54th Annual Amateur Radio / Computer Show, Lincoln Borough VFD No. 184 Social Hall, 4312 Liberty Way, Elizabeth, PA. www.trarc.org

April 25, 2026 : Penn-Mar Radio Club & Hilltop Transmitting Association, York Hamfest Foundation, 2026 York Hamfest, Glenview Alliance Church, 10037 Susquehanna Trail South, Glen Rock, PA. www.yorkhamfest.org

April 26, 2026 : Maryland Mobileers Amateur Radio Club, Odenton Spring Hamfest, Odenton Volunteer Fire Company, 1425 Annapolis Road, Odenton, MD. www.sites.google.com/view/marylandmobileers/hamfest



Delaware Valley Radio Association
QRP Day & SwapFest : Saturday, April 25, 2026 : 1000 to 1400 Hours
www.w2zq.com

Bring a QRP station and setup on the grounds of the club shack. Also, bring any gear you want to sell and set up a table for the SwapFest. Open to all hams and clubs.
For more info contact : info@w2zq.com



Club Merchandise from the K2ZA Workshop
Contact John Zaruba Jr K2ZA at k2za@icloud.com
Go To : <https://gloucestercountyarcs.weebly.com/club-merchandise.html>



"Dinner @ The W2MMD Clubhouse"
Wednesday, April 22, 2026 @ 1800 Hours

Current Website Updates : Go to this page to find out the latest changes & updates on our W2MMD Website
<https://gloucestercountyarcs.weebly.com/current-website-updates.html>



April 2026

OK - Things are looking up a bit as regards the Spring 2026 Ham Exam Preparation Classes, which is Session X of the series. At this point, I have one confirmed and two tentative (**read: promised**) Technician-level students, and four registered Amateur Extra students. No takers at this point for the General, but there is still a bit of time before the classes are scheduled to begin.

As I have mentioned before, we have created a page on the VE Team website that deals with the Ham Exam Preparation Classes - to visit the page and to register for a class, point your browser to :
<https://veteam.w2mmd.org/wpve/index.php/gcarc-ham-license-exam-preparation-class-information>.

It is not too late to register!

That page provides information about how the classes are run, and it also has a direct link to the registration form... which also provides the reader with the various payment method possibilities.

As a reminder, the Spring 2026 sessions will run a total of twelve weeks of class meetings (eleven for the Element 2 group), with the FCC exams being administered in a single joint session on Monday, 29 June 2026, as shown in Table 1. As I mentioned in my last two monthly columns, this will be the first time that we are holding one single exam session for the entire body of students. With the exams now being administered via computer instead of via pen and paper, much less time is needed for the overall process. The exam candidates will get their exam results immediately, at the click of a mouse. Please note that the scheduled exam date is the Monday evening **after completion of the twelve weeks of scheduled class meetings**. In this manner, all twelve weeks can be dedicated to the educational aspect of the program and preparation for the exam. We will not have to take any class meeting time out for the exam - it will have its own scheduled date.

The registration fee has remained at its low level of **\$35.00**, where it has been for the past two years. For that low fee, the student gets :

- **The full benefit of the classroom group training experience**
- **Exposure to scheduled practice exams**
- **A complete set of full-color printed proprietary GCARC educational handouts - graphs, tables, visual graphics, equations, and more**

GCARC Ham Exam Preparation Class Session X Class Meeting Schedule			
Element 2		Element 3	Element 4
4/6/2026		4/7/2026	4/10/2026
4/13/2026		4/14/2026	4/17/2026
4/20/2026		4/21/2026	4/24/2026
4/27/2026		4/28/2026	5/1/2026
5/4/2026		5/5/2026	5/8/2026
5/11/2026		5/12/2026	5/15/2026
5/18/2026		5/19/2026	5/22/2026
(MEM DAY)		5/26/2026	5/29/2026
6/1/2026		6/2/2026	6/5/2026
6/8/2026		6/9/2026	6/12/2026
6/15/2026		6/16/2026	6/19/2026
6/22/2026		6/23/2026	6/26/2026

The Education Connection - Continued on page 13

- A flash drive loaded with useful information including videos, glossaries, the complete text of 47 CFR §97, the applicable question pool, PDF files of all of the handouts, and more
- A personal copy of the Craig Buck *Easy Way* reference manual appropriate for the Element in which the student is enrolled
- Access to the wealth of knowledge of the instructional staff, with personalized attention whenever a student has questions that need to be answered

I am looking forward to having enough registrants to support all three class levels, but I will of course settle for what I get. Our classes are very successful, with well over 95% of the students passing their FCC exam on the first attempt. If you have been waiting for the right opportunity to come along, here it is!

Remember too that the upcoming session is covered under the current promotional program that reimburses the exam fee under certain circumstances. Under the terms of this promotion, any student who attends at least eight of the weekly class meetings and then goes on to successfully pass the FCC exam on the first attempt will have his or her \$15 ARRL exam fee reimbursed by the Club. This rebate is available to students at all license levels, applicable only to the Element under study in the class for which the student has registered.

Our classes are now advertised on the ARRL website. Go to **Find an Amateur Radio License Class in Your Area** (<https://www.arrl.org/find-an-amateur-radio-license-class>) to locate the listings - search for ZIP code 08062 and the listings will appear. Feel free to pass that information on to anyone who may be looking for a class to attend. Our classes are open to all interested individuals - not just to our Club members.

See you next month!



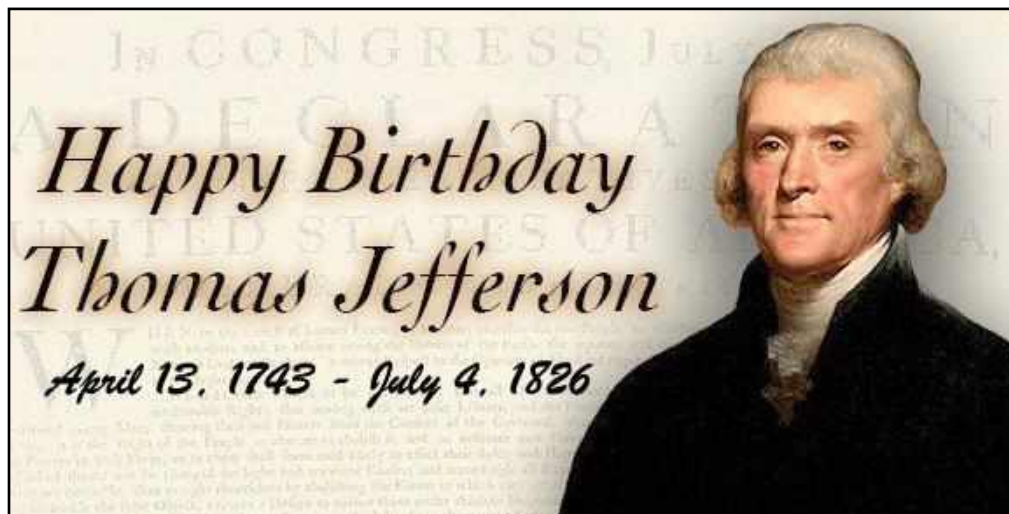
March 7, 2026 Tech Saturday Forum



Full Pink Moon - Wednesday, April 1, 2026 @ 2213 Hours

This Moon heralded the appearance of the “moss pink” (*Phlox subulata*), also called wild ground phlox or creeping phlox - one of the first spring wildflowers. With spring thaws come the Algonquin Breaking Ice Moon and the Dakota Moon When the Streams are Again Navigable. When spring growth appears, so does the Budding Moon of Plants and Shrubs (Tlingit) and Moon of the Red Grass Appearing (Oglala). Animals returning to the area inspired the Lakota name Moon When the Ducks Come Back. Certain Dakota peoples chose the name Moon When the Geese Lay Eggs. Other names are Broken Snowshoe Moon (Anishinaabe), Frog Moon (Cree), and Sugar Maker Moon (Western Abenaki). Appearing either in April or May, Sucker Moon (Anishinaabe) refers to a time to harvest sucker fish, which return to streams or lake shallows to spawn. According to legend, now is the time when this fish comes back from the spirit world to purify bodies of water and the creatures living in them. (This name may also be applied to the February Moon, to honor the sacrifice of the sucker fish in order to feed the Anishinaabe peoples, helping them to survive the winter.).

Old Farmer's Almanac - www.almanac.com



ADIF Logs Wanted When Operating As W2MMD @ The Clubhouse

By Jim Wright N2GXJ - Contact me via e-mail on Club Roster List

It is a common courtesy in ham radio to be able to QSL 2-way contacts made with other hams. We're pretty good about doing this for our field day contacts made each year, but are falling behind in this for contacts we make from the Clubhouse as W2MMD.

So here is the ask :

If you operate from the Clubhouse as W2MMD (e.g. on HF, UHF/VHF, or on Satellite, at Tech Saturday, or during contests or other), please email me the electronic log entries in ADIF format from the logger program you used for those contacts?

That way, just like I do following field day each year, I can get them uploaded to LOTW and to eQSL to offer the courtesy of an electronic QSL to those who make contact with us as W2MMD here in NJ.

Thank you



Tuesday Afternoon Net @ 1200 Hours



147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

Greg Ciraula K3GC : April 7, 2026

Steve Farney W2SEF : April 14, 2026

Rich Subers W2RHS : April 21, 2026

Jeff Garth WB2ZBN : April 28, 2026

If you would like to be a Net Control Station for this net, please contact Steve Farney W2SEF



Thursday Night Rag Chew Net @ 2000 Hours



147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

Jeff Garth WB2ZBN : April 2, 2026

Mary Delemarre W2TDS : April 9, 2026

Gary Mirkin WA3SVW : April 16, 2026

Steve Farney W2SEF : April 23, 2026

Jeff Garth WB2ZBN : April 30, 2026

If you would like to be a Net Control Station for this net, please contact Jeff Garth WB2ZBN



HAPPY WORLD AMATEUR RADIO DAY

Saturday, April 18, 2026



Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

[GCARC <at> MAILMAN <dot> QTH <dot> NET](mailto:GCARC@MAILMAN.QTH.NET)

All Club members have access to this FREE e-mail service



Gloucester County Skywarn Net

The Gloucester County Skywarn Net is held every Sunday @ 1930 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All Are Welcome To Participate
Net Control Station : Jeff Garth WB2ZBN



Gloucester County ARES Net

The Gloucester County ARES Net is held every Sunday @ 2000 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All are welcome to participate

Net Control Stations :

Al Arrison KB2AYU; Steve Farney W2SEF; Angela Metzger KE2DRJ;
Craig Metzger KE2GNU; Gary Mirkin WA3SVW; & Todd Woodward KD2ESH

Happy Easter : April 5, 2026

Bob Keogh KD2NEC : April 12, 2026

Todd Woodward KD2ESH : April 19, 2026

Craig Metzger KE2GNU : April 26, 2026

Anyone who is interested in joining the Gloucester County ARES Team, is invited to contact Steve Farney W2SEF at sef001@comcast.net

Monday & Thursday Night 40 Meter Net @ 1900 Hours
7.165 MHz (Plus or Minus 10 kHz)
NCS : Jim Clark KA2OSV



ARRL Learning Center

<https://learn.arrl.org>

Discover how to make Amateur Radio your own.

Online courses from the ARRL Learning Center provide ARRL members with additional instruction and training for getting on the air, emergency communications, and electronics and technology



New QRZ Award: USA250 (The 250th Anniversary of the United States of America)

In 2026, the United States of America will commemorate a historic milestone — the **250th anniversary of its founding**. To honor this once-in-a-lifetime event, QRZ is proud to introduce a special commemorative operating award: **USA 250**.

The **USA 250 Award** is available to amateur radio operators **worldwide** and is granted upon the successful confirmation of **250 two-way contacts with US-based amateur radio stations** made during the 2026 calendar year.

Award Requirements

To earn the USA 250 Award, operators must:

- Make **250 confirmed QSOs** with **US-based amateur radio stations** (operating from DXCC entities 291, 6, 110, 9, 103, 202 or 285)
- Contacts may be made on **any band** and **any mode**, Transmission may not make use of a relay, repeater or internet linking.
- Licensed operators in **any country** are eligible
- QSOs must take place **during the 2026 calendar year only**
- The operating window opens at **00:00 UTC on January 1, 2026**
- All contacts must be **confirmed on QRZ Logbook** (imported LoTW confirmations accepted)
- The official rules can be found [here https://www.qrz.com/page/qrz-operating-awards](https://www.qrz.com/page/qrz-operating-awards)

Operating Period

January 1, 2026 00:00:00 – December 31, 2026 23:59:59 (UTC)



At The Repair Bench...

A monthly column describing a recent repair bench event.

By Chris Prioli AD2CS - chris@ad2cs.com - www.ad2cs.com

Alinco DX-70T Transceiver - April 2026

A short while ago, one of my fellow GCARC members came to me with an **Alinco DX-70T HF Mobile Radio** (Figure 1) that had lost the majority of its output power. We quickly determined that he had had some antenna and feedline issues that likely caused the failure, so this one was basically just an evaluate and repair proposition.

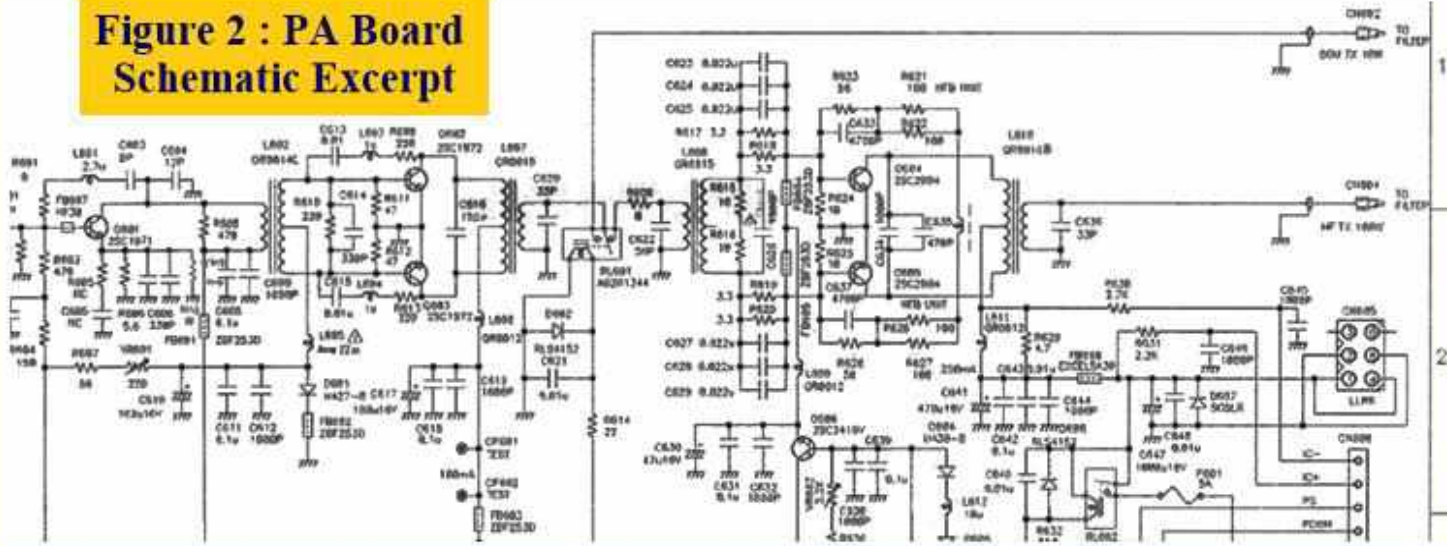


Figure 1 : Alinco DX-70T Transceiver

The Alinco DX-70T is a multi-band HF plus 6-meters mobile-designed transceiver that has a nominal 100-watt maximum RF output power. This unit has only two output power levels, a low-power setting at a nominal 10 watts, and a high-power setting at the full maximum output. When tested, the maximum output from this unit was just about seven watts, and then even that fell off to a zero output during testing.

The transceiver is basically of a three-board design, with a **MAIN** or processor board, a **PA** or power amplifier board, and a **FILTER** or output board. The RF signal is initially generated on the **MAIN** board, and it is then passed via a coaxial cable to the **PA** board where it is amplified to the output level, and then is finally passed on also via coaxial cable to the **FILTER** board where the signal is cleaned up and dressed for transmission to the world at large. The **FILTER** board also serves to pre-process the received signal before passing it on to the remainder of the RX circuitry and finally to the audio circuits.

Figure 2 : PA Board Schematic Excerpt



At The Repair Bench - Continued on page 19

The **PA** board uses a rather strange arrangement of multiple transistors to do its work (**Figure 2**). A 2SC3419Y transistor is used as a bias-level controller. A 2SC1971 transistor is used as a pre-driver, a pair of 2SC1972 transistors as drivers, and finally a pair of 2SC2904 transistors are used as the power amplifier devices. All of these transistors are of the NPN type and are of silicon construction. All of them except the 2SC2904 types are in the ubiquitous TO-220 package with a single mounting tab. With the exception of the 2SC3419Y, all of these transistors are designed for use as RF devices. The 2SC1972 driver transistors also serve as the power amplifier transistors for the 6-meter band, which is limited to approximately ten watts. One of the two driver transistors is bridged by an MA-27B varistor diode which serves to control power roll-back based on transistor temperature.

In-circuit testing and voltage measurement revealed that with the exception of one of the driver transistors, all of the transistors on the **PA** board had failed. I decided to replace the driver transistors as a matched pair, and obviously, the remainder of the transistors on that board required replacement as well. I set out to do so.

Access to the **PA** board requires removal of the **FILTER** board from the chassis, as well as disconnection of numerous interconnecting wire harnesses and coaxial cables.

Mounted to the **PA** board is a small daughterboard, which sits above the power amplifier transistors. All of the transistors are secured to the chassis via machine screws through their mounting tabs, or through their flanges in the case of the 2SC2904 devices. One of the two driver transistors is installed vertically to the side wall of the chassis; the rest are all installed horizontally through the **PA** board (**Figure 3**).

Access to the 2SC2904 power amplifier transistors is best obtained by removal of the daughterboard mentioned previously, though removal of it is not absolutely necessary. However,

in examining this radio, it was discovered that the daughterboard was cracked and bent. This made it apparent that this radio had been worked on in the past, and that a poor job was done at that time. This necessitated removal of the daughterboard so as to make a repair to that board. As it turned out, although the ground plane on the board's lower surface was broken, the ground plane on the upper surface was flexed but not broken, providing the necessary ground path for the components mounted to the daughterboard. We will discuss the daughterboard repair later.

Replacement of the transistors was a straightforward removal and installation process... almost. In removing the bias and driver transistors, it was discovered that the **PA** board had also been damaged by a prior repair activity. Several of the printed circuit board (PCB) traces had lifted from the board, and were held in place only by the solder on the transistor leads and the leads themselves.

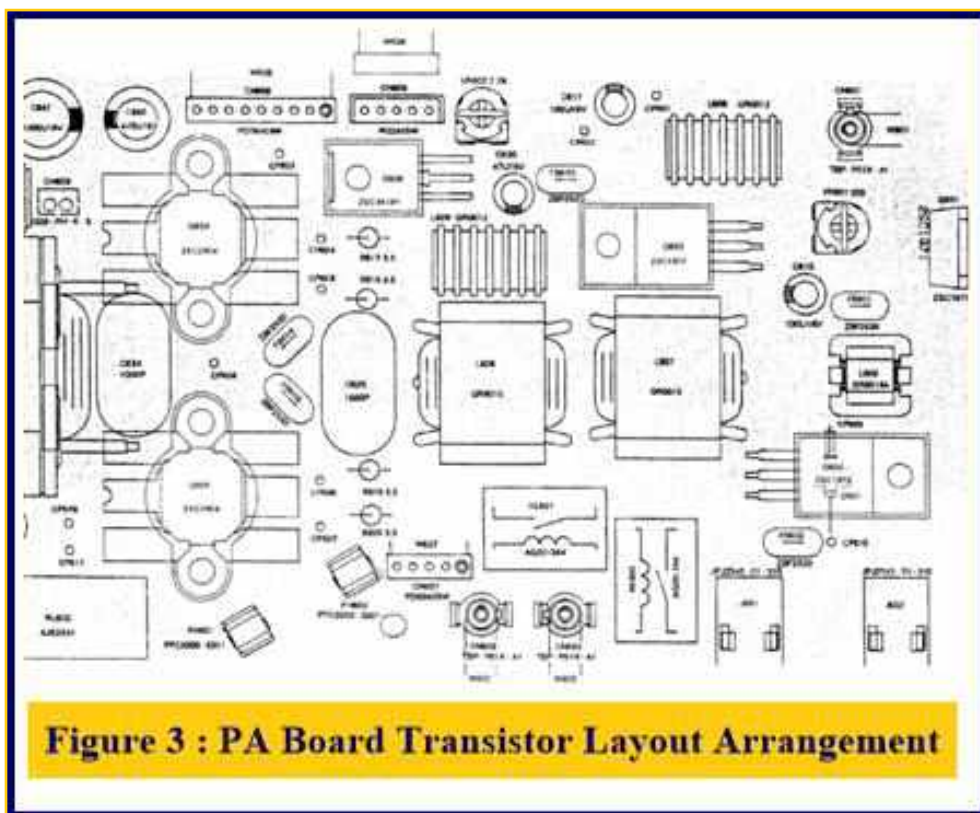


Figure 3 : PA Board Transistor Layout Arrangement

This was extremely difficult to work with as far as re-installing the new transistors was concerned. I decided to make more permanent and effective repairs to the PCB. In the case of most of the damaged PCB traces, they were damaged easily because they were very small, effectively being islands of copper trace material connected to traces on the lower side of the **PA** board by **vias**.

A **via** is a hole that extends through the PCB substrate from a trace on the upper surface to a trace on the lower surface, usually plated or lined with conductive material, effectively connecting the upper-surface pad or trace to the lower-surface pad or trace. This is a common methodology used in passing current from one surface of the PCB to the other. It also provides a ready path for some skilled board repair.

I made most of the individual repairs by scraping some solder mask from the appropriate trace on the lower surface in the location of a usable via, preparing an area to which I could solder a repair conductor. I then used a short length of solid 22AWG wire that I passed through the via and bent over against the board's lower surface. I soldered the bent wire to the scraped trace area, making a through-board connection to that trace. Then, on the upper surface of the board, I cut the wire to the proper length to fit the location under repair, and then bent the wire down against the PCB top surface, aligning it with the transistor lead. Finally, I simply soldered the transistor lead to the wire segment, and the repair was complete. I made several pad repairs in this manner, coating each repair on the PCB underside with brush-on solder mask.

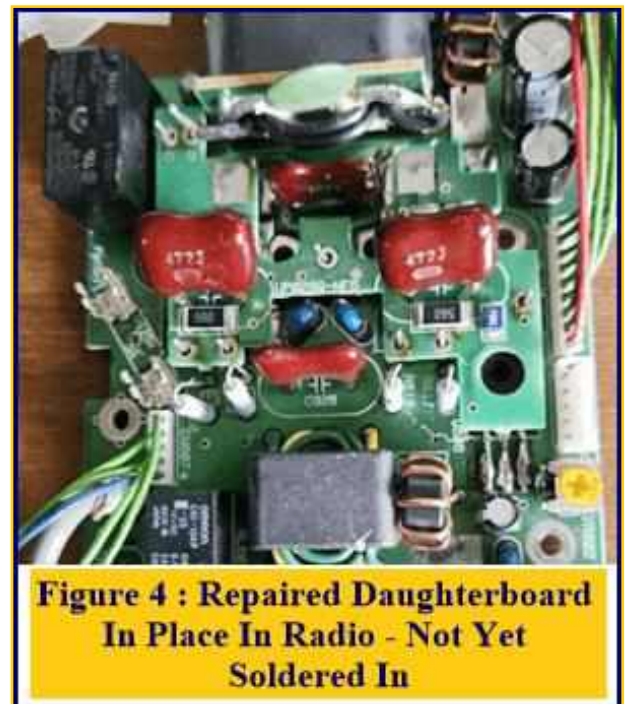
Additional repairs were needed that did not pass through the board. They were made by once again scraping some solder mask from the damaged trace and soldering in a short length of wire. The wire was formed along the path that the damaged trace had originally followed, and then the relevant transistor lead was soldered to the wire.

Once all of the transistors were replaced and the **PA** board had been re-installed into the chassis, it was time to repair the daughterboard. This was done by first heating the board with some hot air, and then flexing the heated board back into its proper flat form. Next, I scraped some solder mask from the bottom surface of the board on either side of the crack. I completed the repair by soldering a length of bare bus wire along the edge of the crack on either side, and then soldered the two wires to each other, effectively bridging the crack. I then coated the entire repair with brush-on solder mask. To finish the job, I re-installed the daughterboard to the **PA** board (**Figure 4**).

After installing the **FILTER** board and making all of the inter-board connections, I performed an alignment of the transmitter, setting the bias voltage as a part of that process. Finally, I tested the transmitter output, finding it to be slightly higher than anticipated at 107 watts on the high-power setting, and 12.6 watts on the low-power setting.

This repair was a straightforward replacement of failed components with the thrown-in chore of repairing somebody else's poor workmanship. A good technician will try as hard as possible not to leave such a mess behind for someone else to clean up. However, it is entirely possible that this unit had been repaired by a former owner or another hobbyist. I certainly hope that it was not done that way by a professional.

See you next month....





**ARE YOU READY
FOR TAX DAY?**



**Gloucester County Amateur Radio Club
YouTube Channel**

<https://www.youtube.com/@W2MMD>

**What's happening in the ARRL Southern New Jersey Section??
Subscribe to the ARRL SNJ Section Groups.IO**

<https://groups.io/g/ARRLSouthernNewJerseySection>

GCARC VE Team : 2026 License Exam Monthly Summary

	Technician Class		General Class		Amateur Extra Class	
	Monthly	YTD	Monthly	YTD	Monthly	YTD
January	1	1	0	0	0	0
February	0	1	0	0	0	0
March	1	2	0	0	1	1
April						
May						
June						
July						
August						
September						
October						
November						
December						

Club Member DMR IDs

Club Member	DMR ID
W2MMD Clubhouse	3198604
Lance Appel KE2UC	3200487
Michael Beach KE2HRH	3222203
Cole Bonner KE2GYA	3221097
Joshua Boylan KE2FSC	3216140
Steven Broomhead KB2RTZ	3218247
Alex Calabrese WA2ADS	3100583
Chuck Capasso WB2PGE	3169781
Todd Cecilio KA2YNT	3169458
Anthony Cerami N2OAC	3202759
Mark Clark N3QMJ	3102110
Norm Coltri K2NRC	3183851
Holden Correia-Fisher KD2JPV	3104911
Mike Covalski N2MMC	3134855
Walter Coward WX2E	3166863
Doug Dersch KD2VQA	3193630
Daniel Devlin KC2GYU	3210633
Carmen DiCamillo KA3WYV	3221262
Thomas Distelcamp Sr KC2GYC	3110869
Glenn Dougherty N2YIO	3161836
Adam Duncan W3DUN	3202691
Herb Dyer KT2Y	3134907
Harry Elwell AD5TT	3128498
Misael Fernandez Jr KE2EBL	3214756
Joseph Fisher KC2TN	3134720
James Foster W3JNF	3142117
Karl Frank W2KBF	3146716
Joseph Gadoury N2JJG (KE2AKT)	3196520
Glen Guenther KE2BUO	3202079
Melissa Guenther KE2BWZ	3202496
Gary Hewitt N2WHV	3134654
Paul Kaplan N2FOB	3134796
Chuck Lanard KD2EIB	3134298
Darren Malone KD2ALQ	3215227
Dean Marzocca N2TNN	3206232

Club Member	DMR ID
Bill McCourt WF1L	3152173
Scott McNutt N3ADP	3189434
Gary Mirkin WA3SVW	3165494
John Murrow KD2NHK	1134122
John Newman WB4YLM	3213273
Phil Nunzio WA3RGY	3134336
John O'Connell K2QA	3110610
Robert Pantazes W2ARP	3157208
Sheldon Parker K2MEN	3214037
Jonathan Pearce WB2MNF	3163415
Michael Pecorini K2MRP	3132996
Michael Pentimall KC3VTF	3203601
John Price III KD2QYC	3123583
Chris Prioli AD2CS	3195449
Nicholas Reigel KE2DCD	3128983
Michael Resnick N2WOQ	3215856
William Robinson KD2ANM	3134257
Frank Romeo N3PUU	3134935
Terry Rossi N2LQH	3183681
Len Rust III W2LJR	3186225
Len Rust IV K2LJR	3196243
Dave Sheppard W2PAX	3112666
Cory Sickles WA3UVV	1142052
James Simeone KC2AOF	3134848
Stan Slachetka WA2JRZ	3213904
Court Smith KD2SPJ	3186243
Jackson Snyder AI2D	3164371
Rich Subers W2RHS	3204316
David Swartout KC3TGB	3198155
Anthony Vece W2AJV	3214797
Matt Wilson K2MFW	3134607
Bill Wood KD2OSJ	3197459
Jim Wright N2GXJ	3215168
John Zaruba Jr K2ZA	3134331
New Entries As Of 03/20/2026	

For more information, DMR links, and W2LJR's DMR presentations, go to :

<https://gloucestercountync.weebly.com/dmr.html>

DMR Configuration Sequence

1. Obtain and Configure DMR ID :

- <https://www.radioid.net>

2. Download Contact List :

- <http://www.dmrcontacts.com>

3. Identify Repeater or Hotspot :

- <https://www.repeaterbook.com>

4. Define Talk Groups

- Numerical ID
- Text Name

<https://brandmeister.network/?page=talkgroups>

5. Create Channel

- Select Number
- Assign Name
- Select DMR ID
- Assign Frequency
 - ♦ Transmit
 - ♦ Receive
 - ♦ Bandwidth

- Power
- DMR Mode (Simplex/Repeater)
- TX Permit (Channel Free)
- Assign Talk Group
- Assign Color Code
 - ♦ Agreed Upon with Other Users
- Assign Time Slot
- Agreed Upon with Other Users

6. Create Zone

7. Add Channels to Zones

8. Configure Features

9. Upload Code Plug

10. Upload Contact List

If you recently changed your callsign, contact idteam@dmr-marc.net to have your DMR ID transferred to your new callsign.

8th Annual ARRL SNJ Section Convention



Celebrating Our 67th Year

HamFest.W2MMD.org

Presented By The

Gloucester
County
Amateur Radio
Club
W2MMD



Open To The Public At 8:00 AM : *Rain or Shine*

48th Annual HamFest : Sunday, October 11, 2026

ARRL Field Day 2026

Saturday, June 27, 2026 - Sunday, June 28, 2026



FT2? (As If FT4 Wasn't Fast Enough)

By Jim Wright N2GXJ

For those of us with stock radios and attic antennas, chasing DX with our weak signals using FT8, and racking up digital QSO points during field day with the faster FT4 has been how we roll on HF for some time. Now there's a "new" experimental thing out there calling itself FT2 that's twice as fast as FT4, and 4 times faster than FT8. It's not been without controversy during its first month in the wild. Even **Joe Taylor K1JT** is weighing in on this. Have you seen or heard of this thing yet?

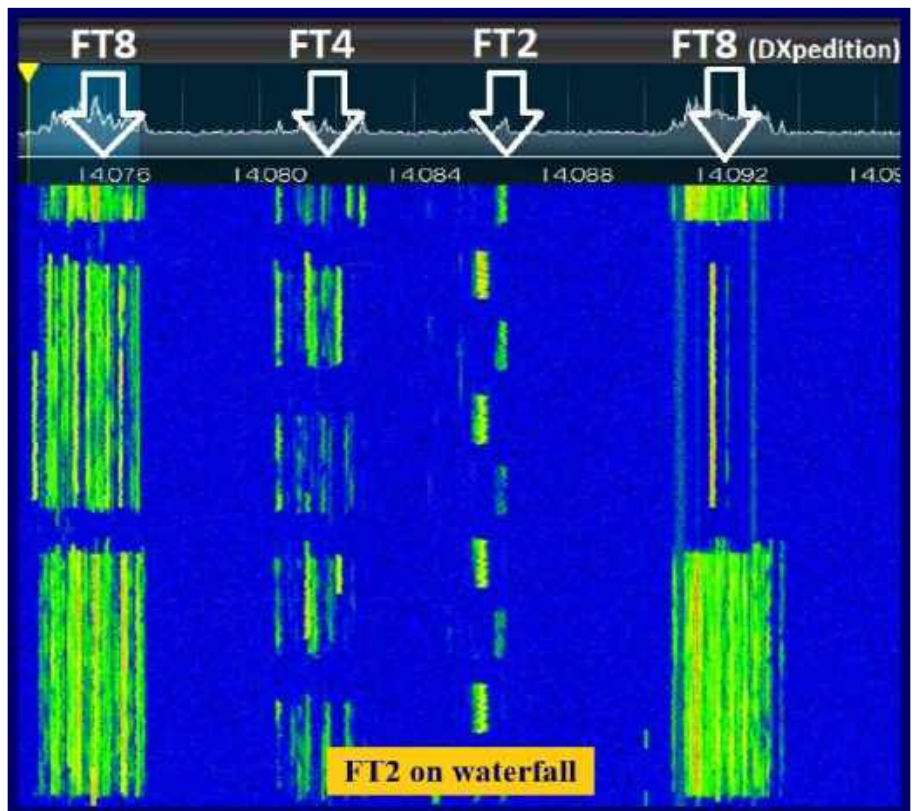
Crazy Fast

I first heard of FT2 from Club member **Jerry Jacobus WB2QEF** who had heard of it and started trying it just weeks after some Italian hams published it on 2/19/2026 as part of what they called "DECODIUM 3.0" at their website : <https://www.ft2.it>. Jerry told me it was crazy fast, and wanted to know if I'd tried it yet. I had not. So I started to look into it. Self-described as using the same codec as FT8 and FT4 (77-bit payload, LDPC 174/91, GFSK modulation) but with a compressed transmission cycle of just 3.8 seconds, FT2's use case is speed : compete QSOs in under 11 seconds with theoretical QSO rates of ~240 QSO/hour.

Now that I've tried it, I can confirm. You've got to have fast reaction times to pounce on a CQ at those speeds! Have you seen FT2 yet on the waterfall? Here's a screen grab from 3/14/2026 on 20 meters showing FT2 in use on -air side-by-side with FT8 and FT4 for comparison. So what's so controversial? (read on)

Starting in late February, as more and more hams started to download and try this thing, dozens of YouTube videos and message board posts began to appear. Within days there were plenty of "how to" demos, and first impressions commentary. And the first hints of controversy. As of this writing, it's only been out in the wild for a month now, but so much has happened. Because of how rapidly things are evolving, I'm finding some of those early posts are already outdated. To bring us up to speed, here's a chronology of some of this early timeline as I've tried to piece it together, hinting at some of the controversies along the way.

February 15, 2026 : The Italian team behind <https://www.ft2.it> announce their version of the FT2 protocol. In a post the authors put out looking for beta testers, they claimed this mode was conceived and developed by **IU8LMC**, with the support of the ARI Caserta Team. Artificial intelligence was used as a development tool to assist with modifications to the WSJT-X source code. They went on to say "The Time vs Bandwidth vs Sensitivity chart shows the engineering trade-off behind FT2 : at 3.8 seconds with 150 Hz bandwidth, sensitivity is approximately -12/-13 dB.



FT2? As If FT4 Wasn't Fast Enough - Continued on page 25

Less sensitive than FT8, but more than sufficient for contests, DXpeditions, and pile-ups where signals are strong. FT2 does not replace FT8 or FT4. It is a specialized mode for when pure speed is what matters.”

February 19, 2026 : Decodium 3.0 executables containing FT2 are released by the Italian team at <https://www.ft2.it>. Almost immediately this sparked controversy on several fronts. First, the executables were initially released without source code. Given the admission that FT2 was a fork based on WSJT-X (which uses the GPLv3 license), under GPLv3, developers must release the source code of derivative works, but **IU8LMC** refused to provide it. Second, this led to claims of intellectual property theft. Critics claiming the mode reused code from FT4 without following license conditions and used generative AI trained on code without regard for original licenses. Third, naming issues. The name “FT2” was criticized for using the initials of Franke and Taylor (the original developers of FT8) without their consent. Others have suggested other names, based on number of tones used, and things like this, but so far, none have stuck.

February 22, 2026 : Following significant pressure, the FT2 code from the Italian team was made available on GitHub (<https://github.com/iu8lmc/decodium3-build>)

February 24, 2026 : Uwe **DG2YCB**, from the WSJT-X-improved community, triumphantly announces that FT2 successfully reverse engineered as open source. (<https://sourceforge.net/p/wsjt-x-improved/mailman/message/59300110>). In his cover letter he doesn't hold back, saying “Apart from whether an FT2 mode alongside FT4 makes sense at all, in my eyes the best answer to the brazen behavior of this Italian group was to simply reverse engineer “IU8LMC's” FT2 mode and publish it as open source. Just on principle! To take the wind out of the sails (as we say here in DL) of people who obviously have fame and/or money primarily in mind.” He goes on to mention that “according to PSKReporter statistics, almost 4,000 users are already using FT2 mode (within two weeks). This indicates that there seems to be some interest in the market for such an ultra-fast mode. (or maybe you are all just bored, and urgently needed something new to play with, hi). Let's see if FT2 proves itself along side FT4, or if it's just a short-lived hype.”

February 25, 2026 : The ADIF development group accepted FT2 for inclusion in the ADIF specification. This was foundational to having a path to it being accepted into common ham radio logging programs, and into QSL services, such as QRZ.com, eQSL.cc, and LoTW*

**(N2GXX Note : As of March 15, 2026, my wsjt-x-improved v3.1.0 wsjt_log,adi records the contacts as “mode MFSK, submode FT2”. From there I upload the same adi file to QRZ, eQSL, and LoTW (via TQSL). At QRZ.COM, the QSO show up as mode “FT2” (good, as expected). At eQSL, same adi file uploaded shows them as “MFSK (FT2)” (OK). However, when I use TQSL to upload to LoTW, they show up as mode “DATA”. LoTW seems to be lagging. Whereas FT8 contacts at LoTW show up as mode “FT8”, and FT4 contacts show up as mode “FT4”, I thought maybe FT2 contacts would show up as “FT2”. They do not at this time)*

February 28, 2026 : A fully open-sourced version of FT2 is released in v3.1.0 of the popular **WSJT-X Improved project** (https://wsjt-x-improved.sourceforge.io/Release_Notes.txt). This version was released earlier than the developer's original April 2026 plan to address the community's interest in the FT2 mode. (N2GXXJ Note : This is the version I have been running with since early March). In the release notes it is clearly acknowledged that FT2 is still experimental. They say they haven't decided yet if they'll keep it, waiting to see if FT2 proves itself alongside FT4.

March 3, 2026 : Amongst many posts appearing on multiple sites as more people learn about this FT2 thing appears a thread titled “Is FT2 a official mode?” on the official wsjtx.groups.io site at : <https://wsjtx.groups.io/g/main/topic/118115655#msg59128>. This is not the first thread on this topic, and the initial responses to the person who asked the question begin to reference answers from other threads and conversations that had been going on concerning this “new” FT2 mode. That is not what caught my attention. It is a post to this thread on the next day, 3/4/2026, that caught my attention. This post to this thread was made by none other than Dr. Joe Taylor K1JT himself [Mr. WSJT]. In his response, Dr. Taylor rebuffs the Italian team on several points, recounting the history of how he and his team worked with FT2 back in 2019. Then he concludes with two insightful statements. First, “We have no plan to add twice-speeded-up version of FT4 in the mainline program WSJT-X”. Then “We are, however, experimenting with a possible asynchronous mode that we be operationally more like traditional RTTY.” I’d encourage you to read the whole response on this thread for yourself.

March 8, 2026 : The Italian team at <https://www.ft2.it> announce the availability of Asynchronous TX - FT2 breaks free from the clock. Described as requiring no period boundary, no NTP, no DT correction. Would be a nice feature to finally break free of having to have well synchronized clocks. And to have more time to react to respond to a CQ at these blazing rates! Am wondering, was this in response to Joe’s post, or other? Don’t know. Perhaps similar will get reverse engineered into WSJT-improved? Don’t know.

March 14, 2026 : Took the screen shots from live waterfall, and wrote this article.

Looking To The Future

Long term, not sure what to expect for FT2, but based on the number of people trying it on the weekend just one month after introduction, there’s no doubt about the short term popularity for trying this mode, at least on 20 meters. Why not give it a try?

How Can I Try FT2?

I’d recommend trying the version of FT2 in WSJT-X-improved v3.1.0 (or higher). You can get a version for your OS at <https://sourceforge.net/projects/wsjt-x-improved/files>. Because of the alternative screen layout (AL) version availability, I like this version of WSJT much better than the standard WSJT-X. Plus it has a number of other nice features (including improved performance with multithreaded operation and optional voice announcements for new DXCC on band, but I’ll let you discover some of these on your own). As of mid-March, I can see on SourceForge that there’s been over 3,400 downloads of this version, so clearly there’s interest. Why not give it a try?

Wednesday, April 15, 2026



2026 Dayton Hamvention Technical Achievement Award Winner : Robert Famiglio K3RF

Robert B. “Bob” Famiglio, K3RF, has spent almost 60 years in amateur radio, blending technical expertise, legal knowledge, and leadership in emergency communications. Licensed at 13, Bob earned a BSE in electrical engineering and a doctorate in law, now admitted to practice in several states and before federal courts and agencies while working in the technology sector. For more than 40 years he has served as Volunteer Counsel, advising hams on PRB 1 matters, zoning, and antenna ordinances, RFI enforcement, and club governance; his technical understanding of station engineering and interference resolution has informed effective legal strategies and regulatory comments.



Elected to ARRL leadership for multiple terms (EPA Section Manager, Atlantic Division Vice Director, and later Director), he championed member rights, transparency, and representative governance. Previously, Bob served several terms as Vice President & General Counsel of the Radio Club of America and functioned as corporate counsel for the board.

In emergency communications he served as ARES District Emergency Coordinator for Greater Philadelphia, supporting regional response agencies applying technical expertise, message handling, and interoperability between amateur and public safety systems; his formal training as a professional firefighter enhances his ability to align ham radio technology with operational needs of served agencies.

A long-time mentor, Bob supports on-air training nets and club programs stressing technical competence, regulatory literacy, and readiness for public service. He believes that amateur radio's core value lies in the skills, service, and technical capability of operators, not merely spectrum access, and he has worked to translate complex technical issues - spectrum coexistence, interference mitigation, and regulatory compliance - into clear, actionable recommendations for policymakers. Bob's blend of engineering, legal acumen, and emergency response experience has encouraged continuous training, lowered barriers to participation, and inspired new generations of ham radio operators.

The **Technical Achievement Award** is given to a selected radio amateur who has made important contributions toward technical excellence in the world of radio. Examples are inventions, processes, discoveries, experiments, and other technical accomplishments or any other outstanding technical achievements that contributed to our great avocation.



Upcoming General Membership Meeting Program!

May 6, 2026

**Bob Famiglio K3RF : Future Proofing ARES
Taking the larger view for hams supporting
Emergency Communications!
What else should we be doing?**



Gloucester County ARES News : April 2026

By Steven Farney W2SEF - sef001@comcast.net

Gloucester County Emergency Coordinator



Hi Folks.

As you can tell by my name being listed as the Gloucester County Emergency Coordinator (EC) above, there has been some changes to the leadership of ARES.

With the concurrence of SNJ Section Emergency Coordinator **Rick Kennard N2RPQ**, **Ron Fish KX1W**, SNJ Section Manager has appointed me the new Gloucester County Emergency Coordinator.

First, I want to thank **Bob Keogh KD2NEC** who is retiring as the Gloucester County EC. **Bob KD2NEC** is going to work with me during this transition period to get me up to speed.

Second, I also want to thank **Karl Frank W2KBF** for all he has done for ARES. He has been a long-time member, he was the EC before **Bob Keogh KD2NEC**, and Karl has done much of the ARES training for as long as I have been involved. Karl, I want to wish you a heartfelt thank you and happy retirement on behalf of the entire ARES membership.

There are going to be additional ARES members asked to be involved with ARES training, the Red Cross trailer/training and other annual training sessions that GC-ARES conducts. Any member wishing to be involved please contact me.

Third, WE NEED ARES MEMBERS including Sunday night net NCS's. We have approximately 17 ARES members out of our Club membership being well over 200. We are also losing 3 NCS operators. We need 3 NCS operator volunteers so the rotation will remain at once every 2 months. As you can see from Karl and Bob plus an additional member retiring by summer, we will be losing about 17% of our membership. I beseech GCARC membership to help ARES and VOLUNTEER!

Additional updates in future CrossTalk issues. See you next month.
73 Steve W2SEF



Saturday, April 25, 2026



Revolutionary War Site POTA

By Stan Slachetka WA2JRZ

Spring is here and many a ham's fancy turns to - among other things - Parks on the Air (POTA).

As you are probably aware from previous CrossTalk articles, discussions at our Club meetings, and our Club web-site (<https://gloucestercountyarizona.weebly.com/revolutionary-war-pota.html>), GCARC is organizing a New Jersey Revolutionary War Site POTA event to recognize the 250th anniversary of our nation's founding. Over the course of the coming year GCARC is planning to activate several parks in New Jersey that have a direct connection or relationship to the Revolutionary War.

Here is where things stand :

Sites

We have narrowed down our park activations to the following four sites :

1. **Batsto Village in Wharton State Forest** : Batsto Village is a historic site in Wharton State Forest in the Pinelands and is known for its beauty and its historical significance. Batsto Iron Works was founded in 1766, and during the Revolutionary War, manufactured supplies for the Continental Army.
2. **Hancock House Historic Site** : The house located in Hancock's Bridge was built in 1734 by William & Sarah Hancock, a prominent Salem County Quaker family. It was the scene of a British-led massacre during the American Revolution. This is not an official POTA site, but we are exploring a special POTA designator for the day of our activation.
3. **Red Bank Battlefield Park** : Located on the waterfront of the Delaware River, Red Bank Battlefield played a crucial role in the Revolutionary War when Hessians attacked Fort Mercer on October 22, 1777. This also is not an official POTA site but has important historic significance as a key battle during the Revolution. As with Hancock House, we are exploring a special POTA designator for the day of our activation.
4. **Fort Mott** : Fort Mott was designed after the American Civil War as part of a three-fort coastal defense system for the Delaware River. Fort Mott is not a Revolutionary War site, but it is a POTA site and proximate to naval engagements in the Delaware that took place during the Revolution.

We have been in touch with Sara Careton, the Executive Director of RevolutionNJ and Mark Texel, Administrator of New Jersey State Historic Sites, State Parks, Forests & Historic Sites at the Department of Environmental Protection (NJDEP) regarding our event. Mark put us in touch with the park staff at Wharton State Forest, Hancock House, and Fort Mott. We've spoken to them and have gotten very positive feedback on our proposed POTA activations and will be coordinating directly with them as we move forward. We have also been in contact with the Gloucester County Department of Parks and Recreation regarding the Red Bank Battlefield Park.

Schedule

The Revolutionary War POTA activations will start in the Spring and continue through Fall. Here are the proposed sequence and time frames for each of the activations :

- **Late May/Early June** : Red Bank Battlefield Park
- **July/August** : Hancock House
- **September 26 and 27** : Fort Mott. This will be in conjunction with the park's annual Historic Soldier's Weekend sponsored by the Fort Mott Park Association. In addition to our POTA activation, we will likely be highlighting the history of amateur radio. More information on the Historic Soldier's Weekend can be found at : <https://fortmott.org/historic-soldiers-weekend>
- **October** : Batsto Village in Wharton State Forest.

Revolutionary War Site POTA - Continued on page 30

Each activation will be scheduled on a Saturday but not on a Tech Saturday, Field Day weekend (or too soon before or after Field Day), or when another Club activity is already scheduled. We will have more information on the specific dates for our April Club meeting or soon thereafter. Once the dates and times are finalized, they will be posted on the Club website and sent to the Club members via email blast. Watch this space!

POTA Prep Meeting

Before doing our first activation, we will conduct a POTA presentation and prep meeting at the Clubhouse on a Saturday at the end of April or early May. This will be designed to introduce POTA to those that may not be familiar with the activity, organize for the event and identify needed equipment, confirm logistics, and highlight important technical issues and park regulations to consider when doing an activation. More information about this meeting and the specific date and time will be presented at our April Club meeting, on our website, and via email blast to the Club members. Again, watch this space!

Equipment

We are anticipating that the necessary equipment (radios, antennas, cable, batteries, misc.) will be provided by Club members experienced in POTA who are willing to have their gear used for the event. We will be circulating a sign-up form, which will include a request to list any equipment that Club members are willing to bring to the activation. The primary mode will be SSB, but with CW available for those that prefer that. We will decide on what equipment we will be using before each activation and depending on who will be attending.

Certificate

We will be preparing a special certificate for hams that contact us. This will be sent as a PDF via email to avoid postage costs. We will also be publicizing each activation beforehand to encourage hams to seek us out on the air.

Revolutionary War POTA Discord Channel

Our Club President, **Jon Pearce WB2MNF**, has set up a Revolutionary War POTA channel in our Club Discord group (“rev-war-activity”). We will be posting relevant information about the planning and implementation of our Revolutionary War POTA activity on this channel. If you are not a Discord member, you can sign up at **Discord - Group Chat That’s All Fun & Games** (<https://discord.com>). The Club's discord group is at : <https://discord.gg/rkgfxnKi6e>.

If you are new to Parks On The Air and want to learn more, you can get information about **POTA at Parks On The Air** (<https://parksontheair.com>) Parks program for amateur radio. You can also purchase a copy of the ARRL’s excellent book on POTA. Titled appropriately **The Parks on the Air Book**, you can purchase a copy at the League’s website at **The Parks on the Air Book** (<https://home.arrl.org/action/Store/Product-Details/productId/2013464221>) or at other online sources or ham radio stores. There are also many interesting YouTube videos online that highlight POTA activations.

This is going to be a fun event and a great way to get involved in POTA and learn more about the important role that New Jersey played in the American Revolution.

If you are interested in helping organize the event or are simply interested in participating in any of the POTA activations, you can leave a post on the Revolutionary War POTA Discord channel or contact me directly at stan-plans@gmail.com. We can also connect at an upcoming Club meeting.

I hope that you can participate and I look forward to seeing you at the Club or on our Revolutionary War POTA channel on Discord.

2024-2028 Element 4 Amateur Extra Class License Question Quiz

This month we continue with Subelement E5 Electrical Principles (4 exam questions - 4 groups).
(ANSWER ARE SOMEWHERE IN THIS ISSUE)

E5C01

Which of the following represents pure capacitive reactance of 100 ohms in rectangular notation?

- A. $0 - j100$
- B. $0 + j100$
- C. $100 - j0$
- D. $100 + j0$

E5C02

How are impedances described in polar coordinates?

- A. By X and R values
- B. By real and imaginary parts
- C. By magnitude and phase angle
- D. By Y and G values

E5C03

Which of the following represents a pure inductive reactance in polar coordinates?

- A. A positive 45 degree phase angle
- B. A negative 45 degree phase angle
- C. A positive 90 degree phase angle
- D. A negative 90 degree phase angle

E5C04

What type of Y-axis scale is most often used for graphs of circuit frequency response?

- A. Linear
- B. Scatter
- C. Random
- D. Logarithmic

E5C05

What kind of diagram is used to show the phase relationship between impedances at a given frequency?

- A. Venn diagram
- B. Near field diagram
- C. Phasor diagram
- D. Far field diagram

E5C06

What does the impedance $50 - j25$ ohms represent?

- A. 50 ohms resistance in series with 25 ohms inductive reactance
- B. 50 ohms resistance in series with 25 ohms capacitive reactance
- C. 25 ohms resistance in series with 50 ohms inductive reactance
- D. 25 ohms resistance in series with 50 ohms capacitive reactance

Element 4 Amateur Extra Class Quiz - Continued on page 32

E5C07

Where is the impedance of a pure resistance plotted on rectangular coordinates?

- A. On the vertical axis
- B. On a line through the origin, slanted at 45 degrees
- C. On a horizontal line, offset vertically above the horizontal axis
- D. On the horizontal axis

E5C08

What coordinate system is often used to display the phase angle of a circuit containing resistance, inductive, and/or capacitive reactance?

- A. Maidenhead grid
- B. Faraday grid
- C. Elliptical coordinates
- D. Polar coordinates

E5C09

When using rectangular coordinates to graph the impedance of a circuit, what do the axes represent?

- A. The X axis represents the resistive component, and the Y axis represents the reactive component
- B. The X axis represents the reactive component, and the Y axis represents the resistive component
- C. The X axis represents the phase angle, and the Y axis represents the magnitude
- D. The X axis represents the magnitude, and the Y axis represents the phase angle

E5C10

Which point on Figure E5-1 best represents the impedance of a series circuit consisting of a 400-ohm resistor and a 38-picofarad capacitor at 14 MHz?

- A. Point 2
- B. Point 4
- C. Point 5
- D. Point 6

E5C11

Which point in Figure E5-1 best represents the impedance of a series circuit consisting of a 300-ohm resistor and an 18-microhenry inductor at 3.505 MHz?

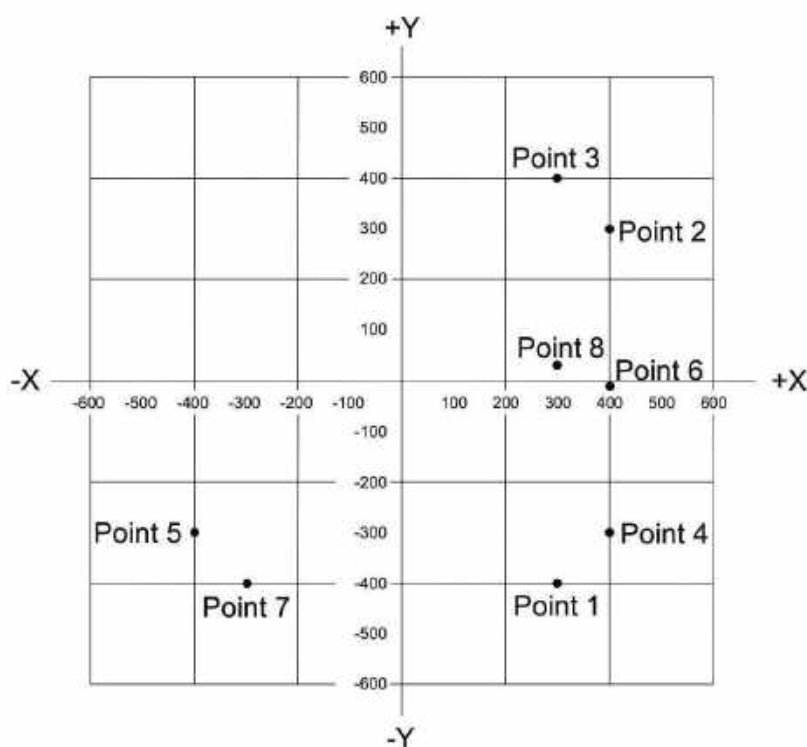
- A. Point 1
- B. Point 3
- C. Point 7
- D. Point 8

E5C12

Which point on Figure E5-1 best represents the impedance of a series circuit consisting of a 300-ohm resistor and a 19-picofarad capacitor at 21.200 MHz?

- A. Point 1
- B. Point 3
- C. Point 7
- D. Point 8

Figure E5-1



Tech Saturday Recap

"The Magic of WSJT"

A presentation by WB2MNF • Gloucester County Amateur Radio Club • March 7, 2026

At the March 7, 2026 Tech Saturday, members of the Gloucester County Amateur Radio Club W2MMD got a look under the hood of WSJT-X - the software suite behind digital modes like FT8, Q65, MSK144, and WSPR. Inspired by Arthur C. Clarke's third law - "any sufficiently advanced technology is indistinguishable from magic" - the presentation's goal was to demystify exactly how these modes pull readable signals out of pure noise.

WSJT-X was developed by Dr. Joe Taylor K1JT, a Nobel Prize-winning physicist whose 1993 prize for pulsar timing research led directly to the digital signal processing techniques in this software. The practical result is staggering: switching from traditional SSB voice to FT8 is the mathematical equivalent of boosting your transmit power 10,000 times in relative signal to noise ratio.

The Four Pillars of Weak-Signal Decoding

Every WSJT mode exploits the same four mathematical principles to extract signals far below what the human ear - or even traditional radios - can detect:

- **1. Narrow Bandwidth.** Noise power is directly proportional to bandwidth ($N = kTB$). FT8 squeezes each signal into just 50 Hz, cutting from a typical SSB bandwidth of 2,500 Hz - which eliminates 17 dB of noise before any other processing begins. WSPR takes this further with an astonishing 6 Hz slot.
- **2. Long Coherent Integration Time.** Noise is random; your signal is not. By transmitting for 15 seconds (FT8) up to two full minutes (WSPR), the software coherently averages the received audio. Averaging causes random noise spikes to cancel toward zero, while the predictable signal accumulates. The longer you listen, the more the noise disappears.
- **3. Structured / Known Format.** WSJT messages carry only 77 bits of user information plus a 14-bit Cyclic Redundancy Check. The software already knows the rules - what characters are legal in which positions of a callsign, grid square, and signal report. This prior knowledge allows the decoder to intelligently reconstruct missing or corrupted pieces.
- **4. Redundancy and Error Correction.** WSJT uses Low-Density Parity-Check (LDPC) codes, packing multiple mathematical proofs of the data into every transmission. The receiving software can fully reconstruct a message even if 30–40% of the received bits are destroyed by static or fading - without requiring any acknowledgment from the other station.

A Specialized Mode for Every Mission

A key takeaway from the presentation is that every mode in WSJT-X is engineered for a specific radio environment. You cannot use an HF DXing mode for moonbounce, and a moonbounce mode cannot catch meteors. The design of each protocol is driven entirely by its use case.

Mode	Bandwidth	Min SNR	TX Period	Best Use Case
FT8	50 Hz	-20.8 dB	15 sec	HF DX, contesting, grid hunting
Q65	90 Hz	-26 dB	15-300 sec	Moonbounce (EME), Doppler paths
MSK144	2.4 kHz	-12 dB	30/30 sec	Meteor scatter — captures <100ms bursts

Mode	Bandwidth	Min SNR	TX Period	Best Use Case
WSPR	6 Hz	-28 dB	2 min	Propagation beaconing, balloons, low power

Inside the Modes: How Each One Works

FT8 — The HF Workhorse

FT8 (Franke-Taylor 8-FSK) is the most widely used amateur digital mode ever created. It uses 8 tones spaced just 6.25 Hz apart - a difference smaller than what the human ear can distinguish. Gray coding ensures adjacent tones differ by only one bit, minimizing decoding errors. Continuous Phase FSK (CPFSK) prevents abrupt phase jumps that would spread energy outside the 50 Hz slot. A 7-tone "Costas Array" sequence embedded three times per transmission allows the receiver to lock timing even at -24 dB SNR. Most impressively, WSJT-X applies a Fast Fourier Transform 200 times per second across the entire 3 kHz audio passband, simultaneously decoding 25 or more FT8 conversations simultaneously.

Q65 — Defeating Doppler on the Moon

Q65 is purpose-built for Earth-Moon-Earth (EME) communication. When signals travel 384,000 km each way, the moon's motion creates a Doppler shift of up to ± 300 Hz - enough to smear one FT8 tone into the next. Q65 solves this by using 65 tones with wider spacing, plus a dedicated synchronization tone as a frequency reference. It also replaces LDPC error correction with QRA64 erasure codes, which are designed to reconstruct entire missing blocks of signal rather than individual bit errors. The transmission period is selectable from 15 to 300 seconds, allowing operators to accumulate more signal energy for marginal paths. The GCARC uses Q65 with a 2.4-meter dish and 200 watts to complete moonbounce contacts - something that required massive antenna farms and kilowatts just two decades ago.

MSK144 — Catching the Meteor Ping

Meteor scatter is the art of bouncing VHF signals off the briefly ionized trail of a burning meteor - a trail that may last only 100 milliseconds. MSK144 deliberately breaks the narrow-bandwidth rule, going wide at 2.4 kHz and blasting data at 2,000 baud. It packs a complete 77-bit message into ultra-fast 72-millisecond frames, repeating them continuously. Operators transmit for 30 seconds, then listen for 30 seconds, with strict geographic timing conventions to avoid both stations transmitting at once. The software scans for and coherently averages partial frames, assembling the message from whatever meteor reflections it catches. Optimal conditions in the northeastern US are typically between 4:00 and 6:30 AM. GCARC members have used MSK144 on 6 meters with the 6 meter beam and the Elecraft amplifier.

WSPR — The Ultimate Whisper

WSPR (Weak Signal Propagation Reporter) achieves the deepest sensitivity of any mode in the suite by transmitting a 4-tone signal at just 1.4648 baud - one symbol every 680 milliseconds - over a full 110-second transmission within an impossibly narrow 6 Hz slot. This allows decoding of signals that are 630 times weaker than the surrounding noise floor. WSPR is designed for automated propagation beaconing, not conversation. Each transmission contains only the callsign, 4-digit grid square, and transmitter power level. GCARC members recently flew a WSPR payload on a high-altitude balloon running on a fraction of a watt of solar power; the signal was received as far away as Australia, more than 10,000 miles away. Timing is maintained by GPS lock, and all heard stations are automatically reported to the global PSKReporter.info propagation map.

The GCARC has utilized all of these modes at various times in EME, meteor scatter operation and in tracking balloons using WSPR. We hope that this article and its Tech Saturday presentation has filled in some background as to how they work.

From The Help Desk - April 2026

By Chris Prioli AD2CS - chris@ad2cs.com - www.ad2cs.com

Note : This is an ongoing series of related articles that will each take a look at some facet of radio selection, installation, or operation as suggested by actual questions received from Club members or other amateur operators.

Q : I am thinking about buying a used HF plus 50MHz transceiver, but I want to be sure that it operates properly before I complete the deal. I have given the seller a refundable deposit, and he is allowing me to take the radio to a shop for evaluation before I buy it. Is it really necessary to have the radio checked out? I was thinking that if the seller is willing to allow me to take it to be tested, it must be OK. Should the radio be tested anyway, and how is that done?

A : The fact that the seller is willing to allow you to take the radio for testing could be a good sign, indicating that the seller at least believes that the radio is in good condition. However, that belief could just as easily be a false belief based in trust and expectation on the part of the seller. For example, consider the situation where the seller was not the user of the radio and actually knows very little about amateur radio in general nor about that radio in specific. Maybe he is selling items from his father's or grandfather's estate and is hoping to simply get the most that he can for the equipment. A somewhat similar situation came up recently, wherein one of our Club members actually purchased a radio on Facebook Marketplace (FBMP) where the radio had been advertised as a *"police scanner"*.

FBMP is one arena where I seldom if ever recommend the purchase of radio equipment, as there are far too many scammers out there selling junk radios on FBMP and leaving the buyer with little or no recourse. I am aware of multiple Club members who have been taken by *"good deals"* on FBMP and were then out an aggregate of almost \$3500 for equipment that would never work again but where the sellers refused to make good on the sales. For that reason, I was skeptical when one radio, a nicely-kept **Icom IC-756 PRO III** was brought in for testing and evaluation.

Let's talk about how I go about testing one of these radios. With almost any antenna connected to the antenna jack, I listen to the audio output while tuning across the various bands, listening for distortion in the received audio, while simultaneously verifying the operation of the various controls that have direct and indirect impacts on the received signal. If the receiver checks out OK, I move on to the T/R switch and the transmitter. For this testing, I prefer to use my **Siglent SVA1015X** combination spectrum analyzer and vector network analyzer, in conjunction with one of my **Bird 43** directional wattmeters or maybe my **Telepost LP-500 Digital Station Monitor**. Also necessary are some cables and adapters, and an appropriate attenuator used to protect the SA from high-level RF signals entering the analyzer front end. Finally, the last required item is a suitable dummy load, but more about that later.

The radio is configured with both a mic and a Morse key. RF output from the radio is routed to the Bird meter inlet or to the LP-500 adapter inlet. The Bird meter or adapter output is passed directly to a 100W dummy load for some basic power testing. The Bird meter should be equipped with an appropriate element for measuring the entire HF band as well as its upper-end and lower-end neighboring bands, meaning that I can test from 1MHz through to 60MHz.

In this case, basic power output testing in CW mode, AM mode, and FM mode showed that the full advertised power for the IC-756 PRO III was being developed and sent to the antenna. We saw 40 watts in the AM mode, and 100 watts in both CW and FM modes.



From The Help Desk - Continued on page 36

With the assurance that when set to maximum RF power, the full advertised power would be developed, we moved on to frequency testing.

To accomplish the frequency testing, I modified the output cabling scheme slightly. The Bird meter outlet was now provided with a “**TEE**” fitting that allows the signal to travel two ways. One signal path from the tee is directly to and into the dummy load. The second output signal path is to the SA, where it is passed into the **RF IN** port via an inline attenuator. In this situation, I used my 10W 40dB inline attenuator, installed directly at the **RF IN** port of the SA. The SVA1015X was set to SA mode, with a stimulus range of between 500kHz and 60MHz, theoretically allowing us to see the entire HF band. I was now ready for frequency testing.

I began by setting the radio up for CW mode, at minimum output power of five watts, and with the VFO set for 1.8MHz. The result was a single peak on the SA screen, but offset slightly high from the VFO value. I moved to 3.6MHz and repeated the test, obtaining similar results. This was the case all the way up the band list to 10-meters, where I decided to stop and make some changes. The one thing that we never saw at all were any peaks at locations that would represent harmonics of the fundamental frequencies at play here. From that, it was safe to draw the conclusion that the harmonics were properly attenuated and should therefore cause no problems nor any reason to reject the radio.

Because of certain patterns that became evident as the testing progressed, I became convinced that the difference between the frequency set in the IC-756 VFO and that reported by the SA was a function of the granularity of the SA, based upon its sampling rate and the width of the frequency span that we were using as a test basis. I decided to focus directly on each transmit frequency, band-by-band, looking for the highest level of accuracy that I could attain for each chosen frequency.

This time, when I set the VFO to 1.8MHz, I also set the SA stimulus to a frequency range of **1MHz (START)** and **2MHz (STOP)**. This time, when making the transmit test, the SA reported the output peak to be exactly at the frequency set in the radio VFO window. Using this process, I tested a couple of frequencies in each of the bands supported by the IC-756 PRO III, with the same excellent results. This radio was as closely aligned as any radio ever could be. Now it was time to go back to some more detailed power output testing.

I removed the tee fitting and the cable connection to the SA, leaving just the Bird meter and the dummy load in circuit. However, when I began the power output test, I discovered that there was only a very minimal power output from the radio in any mode, on any frequency, and at any power setting. A quick check of the feedline circuit cables and connectors showed everything to be correctly installed and connected. Setting the front panel “**S**” meter to its SWR mode, a quick keying of the mike showed that the SWR would fully deflect the needle to the right - indicating **infinite** SWR.

Stripping down the test circuit to just a dummy load and a single length of coaxial cable made no difference. By this time, some of the other Club members who were at the Clubhouse got involved, and we quickly tested both lengths of coaxial cable that had been used, checking them for shorts as well as for opens. The cables tested out OK. We then measured the resistance through the dummy load, and found it to be as close to fifty ohms as was possible. The only test left to make was an SWR test of the dummy load.

I switched the SA1015X to its VNA mode and connected the dummy load up to the S11 port, after configuring the VNA for SWR measurement with a stimulus range of 1MHz to 60MHz. A **very** surprising result was obtained. The SWR of this dummy load had suddenly and without any warning changed from a 1:1 ratio up to a high of 33:1 at the 1MHz end of the sweep, a low of 9:1 at about 14MHz, and then back up to about 17:1 at the 60MHz end of the sweep.

From The Help Desk - Continued on page 37

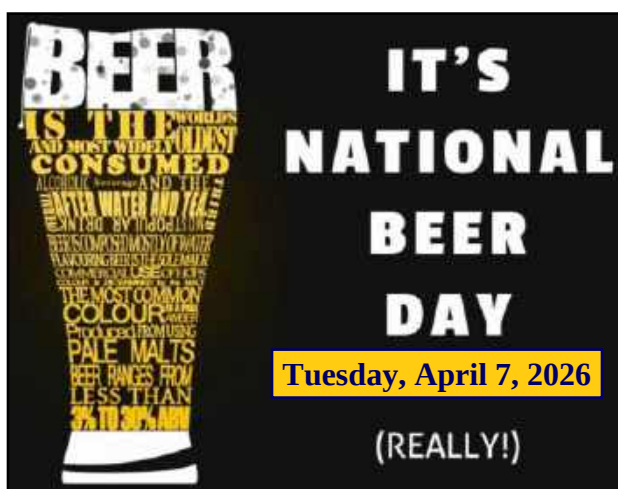
I swapped out that dummy load for another one from the test bench and resumed the testing of the radio. The output power testing showed that the power level tracked the power level control setting quite accurately on all bands and in all modes. In CW and RTTY as well as in FM mode, the maximum measured output power was right at about one hundred watts, as advertised. Furthermore, the maximum output power in the AM mode was right at forty watts, also as advertised.

The end results were quite interesting. First was the fact that all frequencies generated by this radio are right exactly where they are supposed to be, which is a great thing. Next is the fact that the output powers are all up to snuff and are right where the specifications sheet says that they should be. No scientific testing was done either as to the modulation levels on transmit nor as regards any of the receive functions. However, the very non-scientific but more real-world method of human-ear testing showed this radio to be in good shape in those areas as well. Lastly, we got to see first-hand that the protective power-roll-back system does in fact work and it works quite well. When the SWR went off the chart, the radio did its job and cut back on the output power so as not to damage the output transistors in the radio.

In all ways that matter, this radio seemed to test out in great shape, and I would have no hesitation about buying it, which just goes to show that there's an exception to every rule. My ***"don't buy radio equipment from a FBMP seller"*** policy was shown to be invalid in this case. I am very happy that **Josh Boylan KE2FSC**, the new owner of this great radio, got such a tremendous deal on a really nice radio.

This is a good illustration of the type of testing that can and most likely should be made to any used radio that a ham may tentatively decide to purchase. If the radio checks out OK, then by all means, go ahead and buy it. But... if it falls short, either re-negotiate the purchase price based on those findings, or just walk away from the deal completely. I hope that this illustrative case history explains the type of testing that can and probably should be done when time and conditions permit, before a radio is purchased.

See you next month!



There is a new website for the Gloucester County Amateur Radio Club Volunteer Examiner Team. Everything you need to know about getting your ham license or upgrading your license can be found on this website. Pass It Around!

<https://veteam.w2mmd.org>

Vinnie N4NYY's DXpedition to K3TS' Contest Station



Yaesu FTDX 101D



Gloucester County Amateur Radio Club

General Membership Meeting Minutes

Wednesday, March 04, 2026



Meeting opened @ 1900 Hours by President Jonathan Pearce WB2MNF with the Pledge of Allegiance to the Flag

Attendance :

- In-person : 32
- Via Zoom : 21

Visitors :

- Ron Fish KX1W (via Zoom)
- Rob Sherwood NC0B (via Zoom)

New Members :

- James A. Larkin KA2FFP, Monroeville, NJ
- Carmen A. DiCamillo KA3WYV, Clarksboro, NJ

Announcements :

- GCARC Tech Net Zoom forum 3/16 and 3/23 WSJT-X and related applications with **Steve Farney W2SEF** and **Gary Mirkin WA3SVW**
- Dues are due. **Jon Pearce WB2MNF** discussed how membership dues impact the budget and encouraged everyone to renew.

Upcoming Clubhouse Events :

- Tech Saturday 3/7 WSJT Modes Deep Dive
- DMR work session 3/21 @ 9AM
- Board of Director's meeting 3/18 @ 7PM
- Dinner at the Clubhouse 3/25 @ 6PM

Member current activities :

- **Karl Frank W2KBF** showed some fox hunting equipment he recently acquired.
- **Stan Slachetka WA2JRZ** discussed a trip he will be taking to ARRL Headquarters.

Business Meeting :

Minutes of February 2026 General Membership meeting as published in CrossTalk were approved by voice vote of members present.

TREASURER'S REPORT :

- 2026 Year to Date Income and Expense
 - ◆ Income : \$6,077.44
 - ◆ Expense : \$854.77
 - ◆ Net : \$5,222.27

Remarks :

March 2026 General Membership Meeting Minutes - Continued on page 40

GLOUCESTER COUNTY AMATEUR RADIO FOUNDATION :

- **John O’Connell K2QA** reported on the financial balances of the foundation.

CLUBHOUSE REPORT :

- Clubhouse reopened after 3 weeks of snow/ice buildup.

FUTURE PROGRAMS :

- April 2026 “K3LR Contest Station” by **Tim Duffy K3LR**
- May 2026 “Future Proofing ARES” by **Bob Famiglio K3RF**

DX AND CONTESTS :

- **Tony Starr K3TS** provided a report on contests for March, details in CrossTalk.

EDUCATION COMMITTEE :

- **Chris Prioli AD2CS** discussed the upcoming license classes starting 4/6/26 until 6/26/26.
- **Angela Metzger KE2DRJ** reported on a recent field trip of the STEM Club students to Villanova University Engineering school.

TECHNICAL COMMITTEE :

- **Jon Pearce WB2MNF** discussed a satellite pass predictor he recently added to the Skunkworks website, along with a DMR live activity reporter. He also built a Pi Zero based device to flash OpenGD77 firmware in compatible DMR radios, bypassing Windows driver issues.

OLD BUSINESS : None

NEW BUSINESS :

- **Stan Slachetka WA2JRZ** reported on the POTA/Special Events projects celebrating 250th Anniversary of the American Revolution.

Motion to approve the Treasurer’s report passed by voice vote of members present.

PRESENTATION :

- “Receiver Performance” by **Rob Sherwood NC0B**

Meeting adjourned @ 1949 Hours.

Respectfully submitted,
John Zaruba K2ZA,
Recording Secretary



www.facebook.com/W2MMD

Gloucester County Amateur Radio Club

Board of Directors Meeting Minutes

Wednesday, March 18, 2026



Meeting opened @ 1900 Hours by President Jonathan Pearce WB2MNF

Attendance :

- **President Jon Pearce WB2MNF : Present**
- **Vice President Ron Block NR2B : ZOOM**
- **Treasurer John O'Connell K2QA : Present**
- **Recording Secretary John Zaruba Jr K2ZA : Present**
- **Corresponding Secretary Mike Resnick N2WOQ : Present**
- **Director (2024-2026) Al Arrison KB2AYU : Present**
- **Director (2024-2026) Bill Price NJ2S : Present**
- **Director (2025-2027) Jeffrey Garth WB2ZBN : Present**
- **Director (2025-2027) Frank Romeo N3PUU : Present**
- **Director (2026-2028) Chris Prioli AD2CS : Present**
- **Director (2026-2028) James Wright N2GXJ : Present**
- **Trustee (2023-2026) Sheldon Parker K2MEN :**
- **Trustee (2024-2027) Len Rust W2LJR :**
- **Trustee (2025-2028) Earl Moore KC2NCH : Present**
- **Trustee (2026-2029) Greg Ciraula K3GC : Present**
- **Member Stan Slachetka WA2JRZ : Present**

New Member Applications :

- **Michael Beach KE2HRH, Maple Shade, NJ**
- **Russell Stevenson KE2HVQ, Sewell, NJ**

New member applications approved by voice vote of Club officers present.

Treasurer's Report :

- **Income : \$7,446.99**
- **Expense : \$1,159.45**
- **Net : \$6,287.54**

Detailed financial statements are available for member review upon request. Treasurer's report approved by voice vote of Club officers present.

Committees :

- **Clubhouse :** **Al Arrison KB2AYU** and **Frank Romeo N3PUU** reported on recent coax installation in the VHF/UHF room. Also discussed upcoming tower work and the need to re-gravel the driveway.
- **Programs :** **Chris Prioli AD2CS** and **Jon Pearce WB2MNF** discussed the 3/21 DMR work session logistics. 16 members have signed up. **Ron Block NR2B** reported upcoming GM meeting presenters.
- **Education :** **Chris Prioli AD2CS** reported on license class sign-ups.
- **Field Day :** **Jim Wright N2GXJ** reported on contacts with the 4-H to request additional space.
- **Membership :** Discussion of membership renewal statistics. **Jon Pearce WB2MNF** to send out reminder e-mails.

March 2026 Board of Directors Meeting Minutes - Continued on page 42

- **Foxhunt Report : Jim Wright N2GXJ** discussed April 19, 2026 as the date for the next fox hunt.
- **Picnic : Frank Romeo N3PUU** reported on preparations, details in an upcoming CrossTalk. May 30, 2026 was mentioned as a tentative date and Ella Harris Recreational Park as the picnic site.

Old Business :

- **Jeff Garth WB2ZBN** inquired about the status of the Automated External Defibrillator (AED) for the Clubhouse. **Jon Pearce WB2MNF** has submitted the application and **John Zaruba K2ZA** will talk to **Bob Saunders KC2YUS** at Cooper Hospital.

Motion to approve the previous BoD minutes passed by voice vote of Club officers present.

New Business :

- **Jon Pearce WB2MNF** reported on SJRA's proposal to have a section club QSO party the weekend before Field Day. **Jim Wright N2GXJ** to lead the GCARC participation.
- **Jon Pearce WB2MNF** proposed having another "I've got my license, now what?" session.
- **Karl Frank W2KBF** (via an e-mail) proposed a slow speed CW net, more
- **Stan Slachetka WA2JRZ** reported on the Revolutionary War Commemoration on-air event preparations.
- Club Nets :
 - ◆ 40 Meter Net : 7.165 MHz (+/- 10 kHz) @ 1900 Hours
 - ◆ 2 Meter Nets :
 - ◇ February 2026
 - ⇒ Tuesday : Average 10.75 check ins
 - ⇒ Thursday : Average 6 check ins

Meeting adjourned @ 2025 Hours

Respectfully Submitted,
John Zaruba Jr K2ZA
Recording Secretary



ARRL is calling on all radio amateurs and GRMS licensees to join our nationwide grassroots campaign to pass the **Amateur Radio Emergency Preparedness Act**. ARRL has made it very easy to send your letters to Congress. Hams should go to <https://send-a-letter.org/HOA> and GMRS users should go to <https://send-a-letter.org/GMRS>. The letters will automatically be sent to your elected officials encouraging them to support the bipartisan bills. Passage would give amateur radio operators the same rights to install antennas on their property as those enjoyed by users of TV antennas, wireless internet, and flagpoles. Radio clubs should also prepare letters of support, signed by each club officer.

See instructions for clubs (PDF) and a sample letter for clubs (DOCX). For more information about the ARRL campaign to Pass The Bill, visit www.arrl.org/HOA. And please share these YouTube videos on your personal social media.

Article Credit : The ARRL Letter for November 6, 2025 - www.arrl.org



Join ARRL In Celebrating America's 250th - On The Air!

In 2026, ARRL is commemorating America's 250th birthday with a yearlong on-the-air celebration: the America250 Worked All States (WAS) Award. Running from January 1 through December 31, this special operating event challenges amateurs of all license classes to contact all 50 US states and confirm those QSOs via ARRL's Logbook of The World (LoTW - <https://lotw.arrl.org/lotwuser/default>).

Modeled after the classic WAS Award, America250 WAS encourages activity across nearly every band - from LF through microwaves - and on CW, phone, and digital, culminating in a commemorative, frame-worthy WAS certificate.

Participants can pursue America250 WAS in many ways, with endorsements recognizing achievements by band, by mode, Triple Play (all three modes), by satellite, by contacting ARRL Affiliated Club Stations in all 50 states, and by contacting W1AW/portable in all 50 states. Throughout 2026, the iconic W1AW call sign will be "loaned" to stations nationwide, activating each state twice during the year. All confirmations are handled through LoTW, making it easy to track progress and apply for awards and endorsements.

ARRL members can read all the details in the Jan/Feb 2026 (<https://bit.ly/4pVX5Yk>) issue of On The Air magazine.

Operations begin 0000z on Wednesday, and end on 2359z Tuesday (7 days total for each activation). See the complete schedule at : www.arrl.org/america250-was.



NTS Resources

The National Traffic System® (NTS) is a network of Amateur Radio operators who move information during disasters and other emergencies. General messages offering well wishes also move through the NTS to help test the system and to help Amateur Radio operators build traffic handling skills. While the NTS is primarily set up to serve the United States and Canada, it is possible to move traffic internationally through the NTS through various local, regional, area, and international network connections.

- ♦ NTS 2.0 : <https://nts2.arrl.org>
- ♦ NTS Manual : <https://www.arrl.org/nts-manual>
- ♦ NTS Methods and Practices Guidelines Table of Contents : <https://www.arrl.org/table-of-contents-nts-methods-and-practices-guidelines>
- ♦ Handling Instructions : <https://nts2.arrl.org/hx-handling-instructions>
- ♦ Numbered Texts : <https://nts2.arrl.org/numbered-texts>
- ♦ Form Encoding Rules for Form : <https://nts2.arrl.org/form-encoding-rules-for-forms>

Word to the Wise

W/VE Stations

When reading rules for a specific contest, you'll often see language like "W/VE stations work DX stations; DX stations work everyone." I've been asked what a W/VE station is on several occasions. W/VE stations are located in the United States and Canada, while DX stations are located throughout the rest of the world.

Be careful though, some contests (such as in the ARRL International DX Contest) consider Alaska, Hawaii, and the US territories DX, and others (such as in ARRL November Sweepstakes) consider them to be W/VE.

Yaesu G-5500 Rotator Controller Repair - Part 2

By Chris Prioli AD2CS - chris@ad2cs.com - www.ad2cs.com

On the day that the replacement transformer arrived at my shop, I spent a few minutes taking comprehensive resistance measurements with the **Ascel AE20218 Milliohm Meter (Figure 8)** before doing the transformer installation. The results of those measurements are shown below.

A quick glance at the table will show that the only winding of the original transformer that has a resistance measurement anywhere near that of the new (factory replacement) transformer is the 12VAC output secondary winding.



Table 1 - Transformer resistance values

Primary Winding		
Connection	Resistance - Original	Resistance - Replacement
Pin 0 to Pin 1	0.624Ω	6.307Ω
Pin 0 to Pin 2 *	0.674Ω	7.447Ω
Pin 0 to Pin 3	0.788Ω	23.312Ω
Pin 1 to Pin 2	0.063Ω	1.149Ω
Pin 1 to Pin 3	0.176Ω	17.032Ω
Pin 2 to Pin 3	0.112Ω	15.875Ω
Secondary Windings		
Connection	Resistance - Original	Resistance - Replacement
12VAC	0.385Ω	0.374Ω
26VAC	0.128Ω	0.621Ω

*This connection is the factory primary 117VAC input connection used in the G-5500 controller.

In this table, those connections displayed in **bold** typeface are the connections that are used in this controller model. The values that are shown in **red** type are the failed values, while the **green** values are the acceptable values. Of course, all of the values in the **“Replacement”** column are acceptable values, as they are the values of the new transformer.

It is reassuring to note that the resistance measurements on the new transformer validated the **“higher voltage, higher resistance”** convention mentioned earlier. According to the Ascel AE20218 measurements, the 12VAC, 26VAC, and 117VAC windings measured 0.374Ω, 0.621Ω, and 7.447Ω respectively. Clearly, the convention is alive and healthy here!

It is unusual for multiple windings to develop short circuits simultaneously **unless, of course, the failure of one winding was the direct cause of the failure of the other winding**. I believe that a cascade failure of that type is exactly what happened here.

Remember that one of the original findings was that the motor power leads were shorting at the back of the controller. I suspect that this short circuit caused excessive current draw through the 26VAC secondary winding, which in turn caused excessive current draw in the primary.

Yaesu G-5500 Rotator Controller Repair - Continued on page 45

I believe that it was the heat caused by this excess current that led to the failure of the transformer windings.

At this point, I am left with the following failures, which may at first glance seem to be difficult to relate to the excess current :

- **Failure of the LM7806 6-volt voltage regulator**
- **Failure of the LM78L10 10-volt voltage regulator**
- **Failure of the 470µF/25V filter capacitor that was installed across the full-wave bridge rectifier**

Remember, however, that this capacitor had failed open, resulting in there being no smoothing of the DC pulses output by the FWBR. This would have had a strong effect on the operation of the voltage regulator IC's, especially on that of the LM78L10 10-volt regulator. The LM78L10 is a smaller low-current device and is less able to withstand the voltage swings. These three-pin voltage regulator IC's, as a device type, are dependent upon clean DC input power. The failure of the filter capacitor had the net effect of introducing unfiltered pulsating DC into the input side of the voltage regulators. This has a deleterious effect on the individual voltage regulator IC's, and in this case, it led to the failures of the LM78L10 and the LM7806 voltage regulators. The failure of the capacitor itself could well have been a function of age, accelerated by the heat of the excessive current. In fact, the only component failure not attributable to the root problem of the shorted motor leads is the single failed panel meter lamp. That failure was simply a function of time and operational age, which in turn is the reason that I replaced both of the meter lamps as well as the second electrolytic capacitor used in the controller.



Figure 9 : Kelvin Lead Set For Ascel AE20218

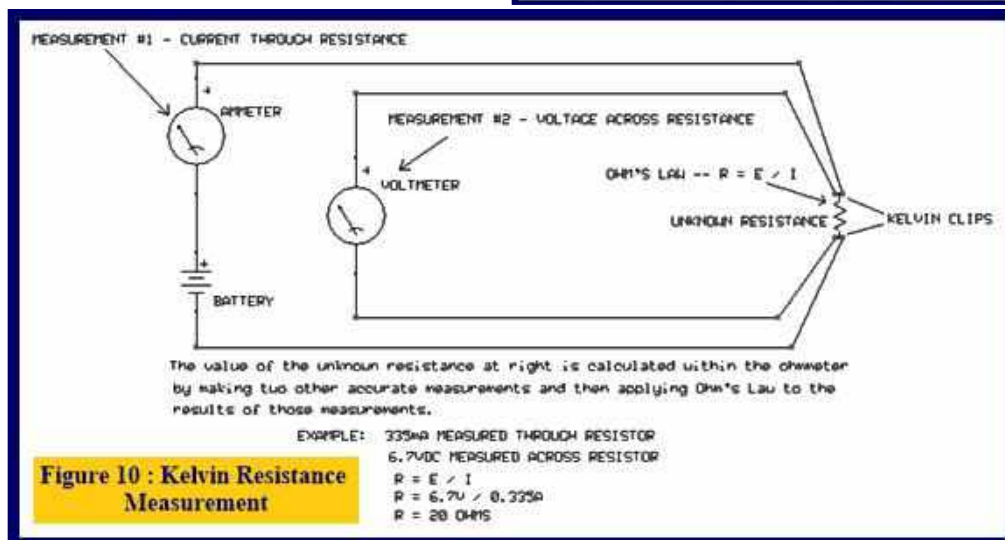


Figure 10 : Kelvin Resistance Measurement

I said earlier that the Ascel AE20218 (Figure 8) is "quite accurate" in its results. This is partly due to the design of the meter itself, and partly due to the fact that it uses the Kelvin measurement technique, which removes all wire lead resistance from the reported results. In the case of a standard ohmmeter, the test meter leads are in-circuit and are therefore contributing their resistance to the reported value. The Kelvin system, which uses four test leads (Figure 9) instead of two and places a known and highly accurate current through the subject resistance, removes the resistance of the test leads from the equation. You can learn more about the Kelvin lead system by reading the explanatory article at : <https://tinyurl.com/5xmz2yz3>

The graphic at Figure 10 illustrates the Kelvin four-wire resistance measurement system diagrammatically, providing an example of how the system works. While it is obvious that the wire leads used in making these measurements still have internal inherent resistance, that resistance is factored out by the fact that the voltmeter is connected in parallel and is a very high input-impedance meter, meaning that circuit loading is at the lowest possible level.

The Kelvin test clip is a special two-wire insulated clip where the current lead and the voltage lead are not connected at all until the clip is closed onto the lead of the target resistor. The results of the current and voltage measurements are used to calculate the resistance which is then displayed on the face of the Kelvin ohmmeter.

One of the problems with any resistance reading is the fact that there is some inherent error in almost any measuring device. When we get to values as low as these values are, a little bit of error makes a large difference. It was because of the apparent low values that I opted to measure the transformer resistances with the Ascel Milliohm Meter.

While I was waiting for the power transformer to arrive, I decided to verify the wiring to the transformer, completely on a whim and for something to do. In the back of my mind, I was thinking about the fact that the controller blew a fuse as soon as I plugged it in, when I thought that the power switch was in the off position. It was, as it turned out, a good thing that I did. What I had noticed previously, but did not think anything at all about, was that the power switch, a paddle-type switch, did not have a crisp “*click*” to its action, instead sliding easily from one position to the other. As I said, I did not think anything about it, assuming that that was the normal “*feel*” of that particular switch. However, when I started to verify the power transformer wiring, I discovered that the switch was, in fact, damaged internally.

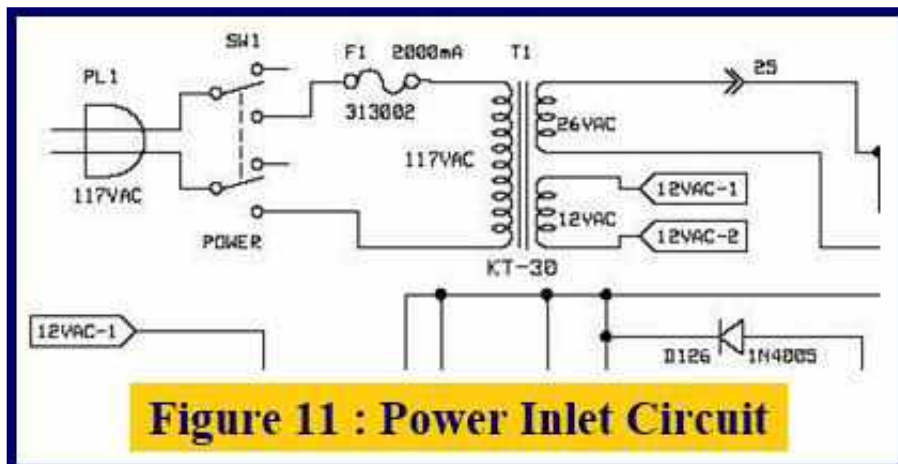


Figure 11 : Power Inlet Circuit

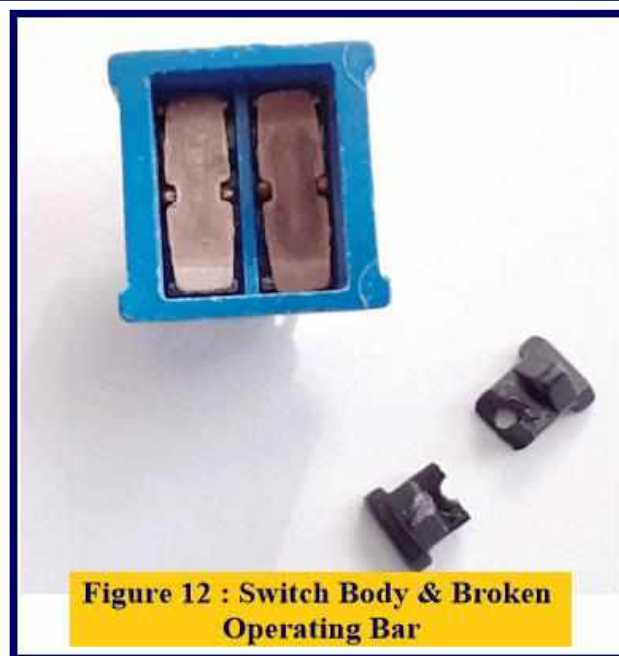


Figure 12 : Switch Body & Broken Operating Bar

The power inlet of this controller switches both the line and the neutral wires, using a DPDT paddle switch as the power switch (See Figure 11). The circuit has the power cord line side connected to the common on one half of the DPDT power switch. From the switched terminal of that side of the switch, the circuit goes to the fuse. From the fuse, the circuit goes through the primary of the power transformer. Coming out of the transformer primary, the circuit goes back to the switched terminal of the second side of the DPDT power switch. From there, the common on that side of the switch is connected to the power cord neutral. What I found was that while one pole of the DPDT paddle switch was switching, the other pole was not, and that pole was shorted (closed) to the active circuit. It was the fused (line) side that was shorted, meaning that even when switched “*OFF*”, line current was available at the fuse and then at the transformer. To make things worse, the switch did not even switch that one pole each and every time the paddle was moved, giving a hit or miss action to the switch. The result was that even when the switch lever was in the was “*OFF*” position, sometimes the circuit was actually “*ON*”, which accounts for the fuse blowing as soon as I plugged the controller in with the switch “*OFF*”.

Being a curious cuss, I disassembled the paddle switch by prying open the retaining tabs that secure the switch body to its upper-half operating mechanism. Inside this switch, there are two teeter-totter contact bars that are supposed to rock back and forth between the opposite ends of the switch when the switch is operated.

The single paddle lever is connected to a short toggle shaft, which is inserted into a plastic operating bar, which in turn slides along the teeter-totter contacts as the switch paddle is moved, thus rocking the contacts (See Figure 12). This plastic bar was broken into two pieces, and one side of the switch had the teeter-totter contact bar welded to the output terminal.

I was able to free up the teeter-totter contact bar by exerting a little bit of force on it, breaking the tiny weld. I then used some cyanoacrylate cement to glue the two pieces of the operating bar back together (Figure 13). Finally, I was able to re-assemble the switch, crimping the tabs back into place. Voilà! The switch worked as it should, with proper snap action as the paddle was moved. However, knowing that the switch was on borrowed time, I went ahead and ordered the replacement switch from Yaesu so that I would have it if and when the switch failed again.



With all of the failures considered together, it is difficult to determine **definitively** which failure was causal and which failures were collateral damage, and what the precise failure sequence was. Obviously, that failed panel meter lamp was just a function of time and use, as already stated. Any incandescent lamp will eventually burn out. However, the welded power switch is probably a result of the failed power transformer drawing excessive current long enough to damage the switch. At the same time, that high current is most likely not directly responsible for the failed voltage regulators. On the other hand, how much of the voltage regulator damage was a result of the open electrolytic capacitor? There is really no way to know the whole story. All that we can do is make some educated guesses, as I have done.

One final interesting point. When reviewing the schematic, it is obvious that the full rectified voltage of 12VDC or so is supplied to the transistor-controlled relay coil circuits. This is done because the manufacturer chose to use 12VDC-rated relays as the motor current switching devices. These circuits were apparently unharmed by the loss of supply voltage filtration.

This job is a prime example of my position that the repair is not complete until all of the problems are solved. I looked into the power switch purely out of the power of a whim. In reality, my subconscious probably knew that there was something wrong with the switch just because of the feel of the switch when operated and the way the fuse blew with the switch **“OFF”**, and that may well be what prompted the whim. Pay attention to the little things like that as you approach any repair, as it may make all the difference between a complete repair and a partial job. Listen to your subconscious and at least think about any **“whims”** that strike you. They could be driven by deep-seated knowledge of which you are not even aware.

“The big thing about being in a club and being a “Ham” is to help each other when there is a need ”
- W2SEF

THE GCARC WSPR NETWORK

Building Pi-Powered Propagation Beacons - A New Club Collaboration Network

This spring, the GCARC is inviting members to form a new collaborative, ongoing propagation research network that combines kit building, Raspberry Pi skills, antenna experimentation, and real propagation science - all in one. Each participant will build a WSPR beacon using the TAPR Universal WSPR HAT - a small filter-and-amplifier board that plugs directly onto a Raspberry Pi, takes the Pi's raw GPIO clock signal, cleans it through a band-specific low-pass filter, and delivers a clean, legal 100-200 mW RF output - paired with a \$15 Raspberry Pi Zero 2W running free software that handles all timing and encoding automatically. Together, our beacons form a Club-wide network whose pooled spot data becomes a powerful crowdsourcing tool: comparing antennas, tracking propagation across bands and seasons, and generating AI-assisted analysis that no single station could produce alone. There's something in it for every skill level - from first-time solderers to seasoned HF operators - and the project grows richer with every member who joins.

WHAT IS WSPR?

A digital propagation-reporting protocol by Nobel Laureate Joe Taylor K1JT. Each 110-second transmission carries just your callsign, grid square, and power - 40.5 bytes total. Error-correction coding decodes signals 28 dB below the noise floor, making 200 mW equivalent to a 1 kW SSB signal for DX purposes.

No operating required. Set it up and it runs forever.

WHY PARTICIPATE?

- Learn Raspberry Pi & Linux in a structured group setting
- Build and solder a real RF kit - skills you will reuse
- Conduct genuine propagation science from your own shack
- Pool member data to crowdsource propagation analytics
- Compare antennas using AI-assisted analysis
- Technician Class licensees welcome - use 10 meters

TOTAL COST PER MEMBER = \$66

TAPR HAT \$32 • Pi Zero 2W \$15 • SD Card \$8 • Power Supply \$8 • Wire Antenna ~\$10

Band & Frequency Selection

Each TAPR board is built for one band. Choose what fits your antenna situation and license class. 30 meters is recommended for most members - WARC band means zero contest QRM, and propagation is reliable around the clock. Technician Class licensees: choose 10 meters (digital modes are permitted in the 28 MHz segment).

BAND	WSPR FREQ	DIPOLE LENGTH	PROPAGATION NOTES	LICENSE	COST
160m	1.8366 MHz	~128 ft	Short NVIS, night only. Very large antenna.	General	\$32
80m	3.5686 MHz	~66 ft	Regional NVIS, excellent night DX.	General	\$32
40m	7.0386 MHz	~33 ft	Day and night. Great regional + DX. Popular band.	General	\$32
30m ★	10.1387 MHz	~23 ft	RECOMMENDED. WARC - no contests. Reliable 24/7 DX.	General	\$32
20m	14.0956 MHz	~16.4 ft	Best global DX range. Most spotters. Daytime only.	General	\$32
17m	18.1046 MHz	~13 ft	Excellent daytime DX. WARC - contest-free.	General	\$32
15m	21.0946 MHz	~11 ft	Good DX at solar max (we're there now). Daytime only.	General	\$32
10m ✓	28.1246 MHz	~8.4 ft	Outstanding DX when open - and it's open often now. Smallest antenna of any HF band.	Technician OK	\$32

Antennas

No dedicated antenna is required to get started. Because WSPR transmits at just 200 mW and runs only two minutes out of every ten, it coexists peacefully with normal station operation - simply connect it to your existing HF antenna when you're not operating. Members who want a permanently connected, dedicated antenna will find that a simple wire dipole cut to length can be built for as little as \$10 in parts and assembled in about 20 minutes. One of the group project sessions will include a hands-on antenna build and design session where members can experiment with different configurations - dipoles, inverted-V, end-fed half-wave, and random wire - and use the Club's pooled WSPR data to compare real-world antenna performance scientifically.

Tentative Planned Sessions

NO.	TITLE	DESCRIPTION
1	Introduction & Overview	Project overview, live demo of a running beacon on wspr.rocks, band selection, and sign-up. No assembly required - just come and learn. (This meeting.)
2	Optional Build Session	Group soldering of the TAPR HAT plus Raspberry Pi setup. Participants bring their own SD card; we will image it with the pre-configured WsprPi software on the spot. Members who prefer to assemble at home may skip this session and bring their completed unit to Session 3. Club Elmers on hand.
3	Protocol Deep-Dive	How WSPR packets are formed, FEC coding, the global spotter network, and hands-on SQL queries against live club data on wspr.rocks.
4	Clubhouse RX Station	Set up a permanent W2MMD receive-only station using Pi + RTL-SDR dongle. No license required to receive. Members can also build their own home RX station at this session.
5	Antennas & Data Analysis	DIY antenna build session (dipole, inverted-V, EFHW). AI-assisted analysis of pooled Club spot data - comparing bands, antenna heights, and member locations as a crowdsourced propagation study.
6	Ongoing: Results & Collaboration	Regular presentation of network findings at Club meetings - propagation trends, antenna comparisons, band-opening events, and AI-generated summaries of member data. The network grows more valuable with time and with every new member who joins.

Join the GCARC WSPR Network

Sign up at today's meeting to join the Club bulk order, or order your own board now at tapr.org/product/wspr (\$32 - choose your band at checkout). Assemble independently at home or join the optional group build session (Session 2) with Elmers on hand. Spot data from all member stations will be pooled to crowdsource propagation analytics - using AI-assisted analysis to compare antennas, bands, and locations across the Club.

Additional information will be forthcoming. In the meantime, join the #wspr-project channel on the GCARC Discord server for updates and discussion. Questions? See WB2MNF or email the Club reflector.

W2MMD • Gloucester County Amateur Radio Club • Spring 2026 • w2mmd.org

TAPR.ORG : Tapr Hat for Raspberry Pi :

- <https://tapr.org/product/wspr>

Raspberry Pi Zero Kit : Canakit.com :

- <https://www.canakit.com/raspberry-pi-zero-2-w.html>

Discord Group Chat Network :

- <https://discord.com>

Updated information can be found at :

- <https://gloucestercountycarc.weebly.com/gcarch-wspr-network.html>

Word to the Wise

Prosign - a combination of two Morse code letters sent without an intervening space to communicate a phrase or concept. For example, "SK" sent as end-of-contact. When written, the letters usually have a bar across the top.



Regional Skywarn Websites For On-Line And In-Person Training Classes

Philadelphia/Mt Holly Skywarn : www.weather.gov/phi/skywarn

State College, PA Skywarn : www.weather.gov/ctp/skywarn

Pittsburgh, PA Skywarn : www.weather.gov/pbz/skywarn

Central Pennsylvania Skywarn Training Schedule Advanced Spotter Training - Science (Virtual Class) Monday, April 27, 2026 - 1800 to 2000 Hours

Editor's Note : As March 24, 2026, there is no registration link on the State College Skywarn website. Please go to : www.weather.gov/ctp/skywarn to see if it has been updated.



27th New Jersey Emergency Preparedness Conference
April 20 - 24, 2026 - Hard Rock Hotel & Casino, Atlantic City, NJ
www.njepa.org

Weather Information Nets & Frequencies

Hurricane Watch Net : www.hwn.org

- Day Time : 14.325 MHz
- Night Time : 7.268 MHz
- Information : 14.300 MHz

Local SKYWARN Frequencies :

- Atlantic County : K2BR, 146.745 MHz (-) 146.2 Hz
 ◇ Net Every Monday @ 1900 Hours
- Camden County : K2EOC, 146.895 MHz (-) 91.5 Hz
 ◇ Net Every Thursday @ 2030 Hours
- Cumberland County : KE2CK, 146.805 MHz, (-) 118.8 Hz
 ◇ Net Every Monday @ 1930 Hours
- Gloucester County : W2MMD, 147.180 MHz (+) 131.8 Hz
 ◇ Net Every Sunday @ 1930 Hours
- Salem County : N2KEJ, 146.625 MHz (-) 131.8 Hz



Jersey String Band Report

By Glenn Dougherty N2YIO

There has been a lot going on with the Band in the last few months. We marched in the very cold and windy 2026 Mummers New Years Day Parade. Due to the conditions, they canceled the judging part of the parade, but the bands decided to perform for both the television and the people that bought tickets for the reviewing stand at City Hall. Then the String Band Association working with the Philadelphia Eagles had the competition at the Link on another very cold day on January 31, 2026.

I don't have the full list of how they finished, but I do know that the Quaker City String Band, who tied with the South Philadelphia String Band for first place in the 2025 Parade, won the 2026 competition and the Jersey String Band finished their best in the seven years they have been together, in 11th place out of the twelve bands that competed. There were two bands that decided not to compete this year. But over all I think the band is happy with the progress they have made and how much they have improved both musically and in their shows over the last few years.

In February, the Band submitted their concept theme for the 2027 parade. It will be a Hobo theme, so now they have to start thinking about what they want to do with this and get costume drawings made and submitted to the costumer. Also figure out what music they want to play and work with the arranger so he can write the music for the band by June or July, so that they can start on it.

On March 25, 2026, the Band held an open house for anyone that wanted to join the band either as a musician or a marshal or if they just wanted to sit in and play some string band music. If you know anyone that plays either a woodwind, a banjo, or that plays the drum and just wants to have fun, we are always looking for new members. And if you don't play but would just like to help out behind the scenes maybe helping to build props or help out on New Years Day, you are more than welcome also. Either stop out on a Wednesday Night Rehearsal or get a hold of me through the Club roster for more information.

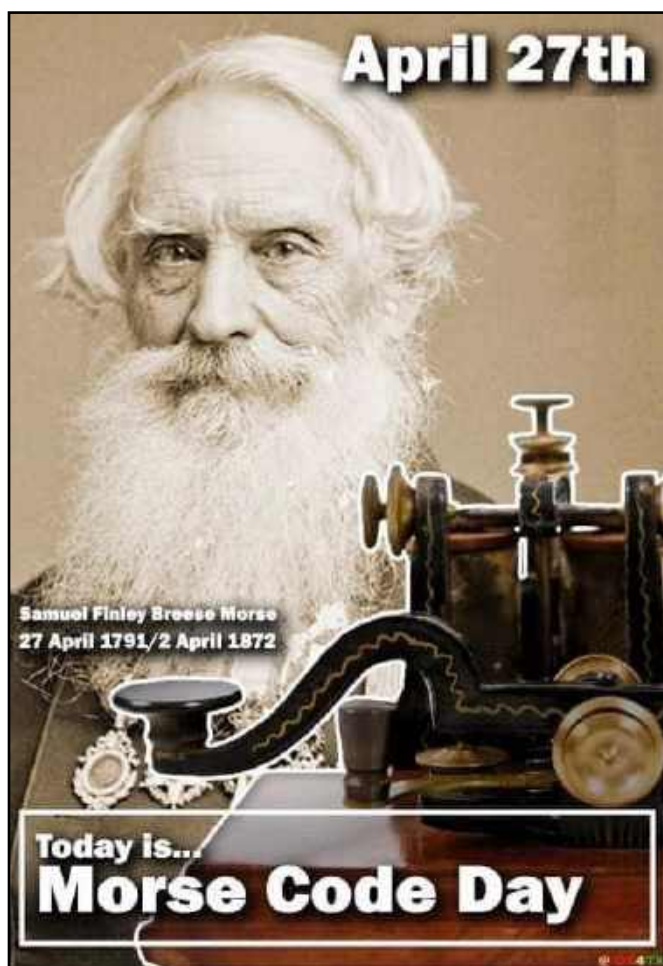
The following are the dates of our upcoming parades :

- Sunday, April 12, 2026 : The Quaker City String Band Championship Serenade in front of their clubhouse on 2nd Street in Philadelphia. This is where all the other bands honor the first place winner.
- Saturday, April 18, 2026 : The Doo Dah Parade in Ocean City, 12-5pm. This is how Ocean City starts their summer season when they bring all the dogs out (Basset Hounds) dressed in costumes. It starts at 6th and Asbury Avenues. Goes up to 12th, turns left up onto the Boardwalk and finishes back at 6th Street. They usually have a former sports star as the Grand Marshall.
- Saturday, April 25, 2026 : The Haddon Avenue Parade along Restaurant Row and then the bands play at one of the restraints along Haddon Avenue. This year it's starting at 4pm.

That is all we have scheduled so far for April. Then in May we have our Memorial Day Parade on May 25, 2026 in Glassboro. I should have more dates for the summer months next month. The Band is looking for a place to hold our drill practices on Sundays in November and December. In 2025 we used the Woodbury Heights Community Center, but due to scheduling conflicts it wasn't available on the dates we needed, so the Band had to practice outside at St Peters Church in Clarksboro. So if anyone knows of a building that would be available, please let me know.

The Philadelphia String Band Association will be holding the 6th Annual String Band Luau Palooza this summer at the Seaport Pier in North Wildwood from 12 noon to 5PM and all 14 string bands will be playing throughout the day. More information to follow.

To Be Added To The DX HONOR ROLL or Update
Your Number, Please Contact
Ernest Kraus KD2EAV
meanddelcanotc@verizon.net



Name/Callsign	DXCC
Bill Grim W0MHK	352
Dave Strout W2YC	349
Edward De Fonzo W2DE	339
Darrell Neron AB2E	337
Bob Pantazes W2ARP	300
Gary Castellini N2IEC	288
Sheldon Parker K2MEN	278
Vinnie Sallustio N4NYY	278
Jim Wright N2GXJ	278
John Hill W2HUV	271
Tony Starr K3TS	250
Kenny Denson WB2P	248
Dennis Sandole K2SE	231
Eric Morris N2BRJ	175
Art Strong KA0WS	165
Howard Marder WA2IBZ	161
Ben Johnson NE2R	151
Steve Farney W2SEF	149
Phil Nunzio WA3RGY	144
Rich Subers W2RHS	133
Bart Kleczynski AC2PT	124
Marc Federici WM2Y	117
Chuck Capasso WB2PGE	104
Harry Strahlendorf W3DNQ	103
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Updated As Of 03/20/2026	

Question Pool Answers : E5C01:A; E5C02:C; E5C03:C; E5C04:D; E5C05:C; E5C06:B; E5C07:D; E5C08:D;
E5C09:A; E5C10:B; E5C11:B; E5C12:A



*Hmm...It's Saturday and you want to know if someone is at the
Clubhouse? Why not call and find out!*

W2MMD Clubhouse : 856-244-6914

April Birthdays

*Congratulations To Our Members Who Are
Celebrating A Birthday This Month*

Lance Appel KE2UC
Marshall Baker KC2DFO
James Bishop KE2EUD
Ron Block NR2B
Cole Bonner KE2GYA
Irma Colabrese N2FNF
Ralph Daggan III KE2AHX
Doug Dersch KD2VQA
Daniel Devlin KC2GYU
Joseph DiCastelnuovo KD2RPD
Marc Federici WM2Y
Tim Furey Sr KE2AHY
Diann Gentile KD2BND
John Gordon WA2RHJ
Dan Goulianos KE2BPK
Anish James KE2DRI
Tom Litle Sr AB2YG
Dean Marzocca N2TNN
Frank Mayer W2SDR
Ray Metzger AI2B (President 1978)
Jerome Milden K2OOO
Phil Nunzio WA3RGY
John O'Connell K2QA
Aimée Ortiz K9RVT
Mike Resnick N2WOQ
Frank Romeo Jr N3PUU
Jackson Snyder AI2D
Robert Snyder N2KGO
Jeff Thomson NJ2JT



In Memoriam : April Birthdays

Robert Anstatt WB2CPL
Stanley Christman KB2DW
Gordon Cooper AA4N
(Charter Member, President 1966)
Frederick Cowgill WB2GEK
Daniel Damiano KC2ELC
Harry English III N2JIB
Milton Frantz Jr K2MXF
Gerald Friedman KB2DHQ
Mark Gennovario K2UMF
Norman Harbison Jr K2NH
William King N2STQ
Leonard Kravitz KD2CR
Jerry Marinacci KE2CK
Thomas McCormick WA2QZH
Whitney Myers KB2ZTL
Thomas Oakman WV8TDO
Martin O'Grady N2FPO
David Riker WA2KOH
Laurence Rockhill WA2SJJ
Leonard Staab IV
Edwin Stetser Sr K2JJC (Charter Member)
Keith Waltman W2ERP
Lester Wolf W2OM
William Wyatt Sr N2WIB



CrossTalk Submissions

This is your Club Magazine. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so! We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a **REAL** Club.

All submissions, queries, comments, and editorials should be addressed to :
Jeff Garth WB2ZBN at djgrath1 <at> gmail <dot> com

Submission deadline for the May 2026 issue : Monday, April 20, 2026

Club Website www.w2mmd.org

Club E-Mail Reflector : GCARC <at> Mailman <dot> QTH <dot> Net

Announced DX Operations : April 2026

www.ng3k.com/Misc/adxo.html

From The Shack of Bill Feidt NG3K : www.ng3k.com

2026 Mar20	2026 Apr01	Bangladesh	S21WD	LoTW	TDDX 20260120	By DJ4MX DK6SP DL3ON M0SDV S21ABO S21TV fm IOTAAS-140; 160-10m, including 60m; CW SSB RTTY FT8; QRV for CQ WPX SSB
2026 Mar22	2026 Apr01	St Kitts & Nevis	V4 NEW	LoTW	K5ZD 20260307	By K5ZD as V4/K5ZD; 80-10m; CW SSB; QRV for CQ WPX SSB; using V47T (QSL via W2RQ)
2026 Mar24	2026 Mar31	Bahamas	C6AFD	LoTW	OPDX 20260131	By AD8FD fm Rock Sound, Eleuthera I (IOTA NA-001, FL14wu); 40-10m; SSB FT8; QRV for CQ WPX SSB
2026 Mar25	2026 Apr02	Martinique	FM	LoTW	EA1BP 20251223	By EA1BP as FM/EA1BP; HF; mainly SSB; QRV for WPX SSB using TO7O; QSL via EA1BP Buro and Club Log OQRS
2026 Mar26	2026 Mar30	Palau	T88KH	Club Log OQRS	OPDX 20251222	By JP1RIW fm Koror I (IOTA OC-009, PJ77fi); 80-6m; SSB FT8; QRV for CQ WPX SSB
2026 Mar28	2026 Apr11	Easter I	3G0YE	LoTW	OPDX 20260228	By DJ4EL fm Rapa Nui (IOTA SA-001); 20- 6m; mainly SSB; 800w; QSL via DJ4EL (B/d) or Club Log OQRS
2026 Mar30	2026 Apr06	Canary Is	EA8	LoTW	OPDX 20251030	By DA2DX as EA8/DA2DX fm Fuerteventura I (IOTA AF-004); HF; CW SSB RTTY FT4 FT8; holiday style operation; QSL via Club Log OQRS or DA2DX direct (no EQSL, no Email QSL)
April						
2026 Apr03	2026 May20	Rodrigues I	3B9N	VU3OPT	OPDX 20260221	By VU3OPT; 20 15 10m; CW
2026 Apr16	2026 Apr30	Bermuda	VP9KF	See Info	TDDX 20260206	By G4BKI fm Bailey Bay; 160-10m; CW; QSL: c/o Paul Evans, 15 Watch Knob Lane, Swannanoa, NC 28778, USA
2026 Apr17	2026 Apr22	Fiji	3D2JK	LoTW	OPDX 20260216	By SP5APW fm Lakeba I (IOTA OC-095); 20-6m; mainly FT8, SSB; QSL via Club Log OQRS
2026 Apr19	2026 Apr30	Marquesas	TX9W	LoTW	K5WE 20251001	By K5WE W5CCP N5TEA K4VBM WD5COV F6BCW fm Atuona, Hiva Oa I (IOTA OC-027); 160-6m; CW FT8 FT4 SSB RTTY; 6 stns; QSL via K5WE
2026 Apr25	2026 May08	Gambia	C5	LoTW	OPDX 20260207	By F4AGG F5RAV as C5C (SSB CW) and C5D (RTTY PSK FT8); HF; QSL C5C via F5RAV direct; QSL C5D via LoTW only

Also for your convenience, there is a direct link to NG3K on our website. Click on the NG3K DX Page.

April 2026

+ QRP Fox Hunt	0200Z-0330Z, Apr 1
+ Phone Weekly Test	0230Z-0300Z, Apr 1
+ A1Club AWT	1145Z-1300Z, Apr 1
+ CWops Test (CWT)	1300Z-1400Z, Apr 1
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, Apr 1
+ Mini-Test 40	1700Z-1759Z, Apr 1
+ Mini-Test 80	1800Z-1859Z, Apr 1
+ CWops Test (CWT)	1900Z-2000Z, Apr 1
+ UKEICC 80m Contest	2000Z-2100Z, Apr 1
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Apr 2 and 0200Z-0300Z, Apr 3
+ CWops Test (CWT)	0300Z-0400Z, Apr 2
+ CWops Test (CWT)	0700Z-0800Z, Apr 2
+ Maundy Thursday Contest	1200Z-1500Z, Apr 2 and 2000Z-2300Z, Apr 2
+ SARL 80m QSO Party	1700Z-2000Z, Apr 2
+ NRAU 10m Activity Contest	1800Z-1900Z, Apr 2 (CW) and 1900Z-2000Z, Apr 2 (SSB) and 2000Z-2100Z, Apr 2 (FM) and 2100Z-2200Z, Apr 2 (Dig)
+ SKCC Sprint Europe	2000Z-2200Z, Apr 2
+ QRP Fox Hunt	0100Z-0230Z, Apr 3
+ NCCC FT4 Sprint	0100Z-0130Z, Apr 3
+ Weekly RTTY Test	0145Z-0215Z, Apr 3
+ NCCC Sprint	0230Z-0300Z, Apr 3
+ K1USN Slow Speed Test	2000Z-2100Z, Apr 3
+ YBDXPI SSB Contest	0000Z, Apr 4 to 2359Z, Apr 5
+ PODXS 070 New Member Jamboree	0000Z-2359Z, Apr 4
+ EA RTTY Contest	1200Z, Apr 4 to 1200Z, Apr 5
+ Louisiana QSO Party	1400Z, Apr 4 to 0200Z, Apr 5
+ Mississippi QSO Party	1400Z, Apr 4 to 0200Z, Apr 5
+ SP DX Contest	1500Z, Apr 4 to 1500Z, Apr 5
+ K1USN Slow Speed Test	0000Z-0100Z, Apr 6
+ ICWC Medium Speed Test	1300Z-1400Z, Apr 6
+ IRTS 70cm Counties Contest	1300Z-1330Z, Apr 6
+ IRTS 2m Counties Contest	1330Z-1500Z, Apr 6
+ DARC Easter Contest	1500Z-1729Z, Apr 6
+ OK1WC Memorial (MWC)	1630Z-1729Z, Apr 6
+ ICWC Medium Speed Test	1900Z-2000Z, Apr 6
+ ARS Spartan Sprint	0000Z-0200Z, Apr 7
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 7
+ ICWC Medium Speed Test	0300Z-0400Z, Apr 7
+ ZL Sprint	0800Z-0829Z (CW), Apr 7 and 0830Z-0859Z (SSB), Apr 7 and 0900Z-0929Z (SSB), Apr 7
+ Phone Weekly Test	0230Z-0300Z, Apr 8
+ A1Club AWT	1145Z-1300Z, Apr 8
+ CWops Test (CWT)	1300Z-1400Z, Apr 8
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, Apr 8
+ Mini-Test 40	1700Z-1759Z, Apr 8
+ Mini-Test 80	1800Z-1859Z, Apr 8
+ CWops Test (CWT)	1900Z-2000Z, Apr 8
+ CWops Test (CWT)	0300Z-0400Z, Apr 9
+ CWops Test (CWT)	0700Z-0800Z, Apr 9
+ NCCC FT4 Sprint	0100Z-0130Z, Apr 10
+ Weekly RTTY Test	0145Z-0215Z, Apr 10
+ NCCC Sprint	0230Z-0300Z, Apr 10
+ K1USN Slow Speed Test	2000Z-2100Z, Apr 10
+ QRP ARCI Spring QSO Party	0000Z-0600Z, Apr 11
+ JIDX CW Contest	0700Z, Apr 11 to 1300Z, Apr 12
+ SKCC Weekend Sprintathon	1200Z, Apr 11 to 2400Z, Apr 12
+ OK/OM DX Contest, SSB	1200Z, Apr 11 to 1159Z, Apr 12
+ Yuri Gagarin International DX Contest	1200Z, Apr 11 to 1159Z, Apr 12

April 2026 Contest Calendar - Continued on page 56

+ IG-RY World Wide RTTY Contest	1200Z, Apr 11 to 1800Z, Apr 12
+ DIG QSO Party, CW	1200Z-1700Z, Apr 11 (20m-10m) and 0700Z-0900Z, Apr 12 (80m) and 0900Z-1100Z, Apr 12 (40m)
+ RSGB FT4 International Activity Day	1200Z, Apr 11 to 1200Z, Apr 12
+ New Mexico QSO Party	1400Z, Apr 11 to 0200Z, Apr 12
+ Missouri QSO Party	1400Z, Apr 11 to 0400Z, Apr 12 and 1400Z-2000Z, Apr 12
+ Africa FT4 DX Contest	1500Z-1800Z, Apr 11
+ Georgia QSO Party	1800Z, Apr 11 to 0359Z, Apr 12 and 1400Z-2359Z, Apr 12
+ North Dakota QSO Party	1800Z, Apr 11 to 1800Z, Apr 12
+ Hungarian Straight Key Contest	1500Z-1600Z, Apr 12
+ 4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Apr 13
+ K1USN Slow Speed Test	0000Z-0100Z, Apr 13
+ ICWC Medium Speed Test	1300Z-1400Z, Apr 13
+ OK1WC Memorial (MWC)	1630Z-1729Z, Apr 13
+ RSGB 80m Club Championship, CW	1900Z-2030Z, Apr 13
+ ICWC Medium Speed Test	1900Z-2000Z, Apr 13
+ 144 MHz Spring Sprint	2300Z, Apr 13 to 0600Z, Apr 14
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 14
+ ICWC Medium Speed Test	0300Z-0400Z, Apr 14
+ ZL Sprint	0800Z-0829Z (CW), Apr 14 and 0830Z-0859Z (SSB), Apr 14 and 0900Z-0929Z (SSB), Apr 14
+ DARC RTTY Sprint	1800Z-1929Z, Apr 14
+ NAQCC CW Sprint	0030Z-0230Z, Apr 15
+ Phone Weekly Test	0230Z-0300Z, Apr 15
+ A1Club AWT	1145Z-1300Z, Apr 15
+ CWops Test (CWT)	1300Z-1400Z, Apr 15
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, Apr 15
+ Mini-Test 40	1700Z-1759Z, Apr 15
+ Mini-Test 80	1800Z-1859Z, Apr 15
+ CWops Test (CWT)	1900Z-2000Z, Apr 15
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Apr 16 and 0200Z-0300Z, Apr 17
+ CWops Test (CWT)	0300Z-0400Z, Apr 16
+ CWops Test (CWT)	0700Z-0800Z, Apr 16
+ NTC QSO Party	1900Z-2000Z, Apr 16
+ NCCC FT4 Sprint	0100Z-0130Z, Apr 17
+ Weekly RTTY Test	0145Z-0215Z, Apr 17
+ NCCC Sprint	0230Z-0300Z, Apr 17
+ Florida State Parks on the Air	1200Z-2359Z, Apr 17 and 1200Z-2359Z, Apr 18 and 1200Z-2359Z, Apr 19 and 1200Z-2359Z, Apr 20
+ K1USN Slow Speed Test	2000Z-2100Z, Apr 17
+ World Wide Holyland Contest	2100Z, Apr 17 to 2059Z, Apr 18
+ Texas State Parks on the Air	0000Z, Apr 18 to 2359Z, Apr 19
+ ES Open HF Championship	0500Z-0859Z, Apr 18
+ Worked All Provinces of China DX Contest	0600Z, Apr 18 to 0559Z, Apr 19
+ Dutch PACCdigi Contest	0700Z to 1900Z, Apr 18
+ QRP to the Field	0800-1800 local, Apr 18
+ CQMM DX Contest	0900Z, Apr 18 to 2359Z, Apr 19
+ Georgia State Parks on the Air	1200Z, Apr 18 to 2359Z, Apr 19
+ World Time Zone Challenge	1200Z, Apr 18 to 1200Z, Apr 19
+ Michigan QSO Party	1600Z, Apr 18 to 0400Z, Apr 19
+ EA-QRP CW Contest	1700Z-1800Z, Apr 18 (10m) and 1800Z-1900Z, Apr 18 (15m) and 1900Z-2000Z, Apr 18 (20m) and 2000Z-2100Z, Apr 18 (40m) and 2100Z-2300Z, Apr 18 (80m) and 0700Z-0900Z, Apr 19 (40m) and 0900Z-1000Z, Apr 19 (20m) and 1000Z-1100Z, Apr 19 (15m) and 1100Z-1200Z, Apr 19 (10m)

April 2026 Contest Calendar - WA7BNM Contest Calendar : www.contestcalendar.com

April 2026 Contest Calendar - Continued from page 56

+ Feld Hell Sprint	1800Z-2159Z, Apr 18
+ Ontario QSO Party	1800Z, Apr 18 to 0300Z, Apr 19 and 1200Z-2000Z, Apr 19
+ International Vintage Contest HF	0700Z-1100Z, Apr 19 and 1500Z-1900Z, Apr 19
+ Quebec QSO Party	1300Z-2400Z, Apr 19
+ ARRL Rookie Roundup, SSB	1800Z-2359Z, Apr 19
+ Run for the Bacon QRP Contest	2300Z, Apr 19 to 0100Z, Apr 20
+ K1USN Slow Speed Test	0000Z-0100Z, Apr 20
+ ICWC Medium Speed Test	1300Z-1400Z, Apr 20
+ OK1WC Memorial (MWC)	1630Z-1729Z, Apr 20
+ ICWC Medium Speed Test	1900Z-2000Z, Apr 20
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 21
+ ICWC Medium Speed Test	0300Z-0400Z, Apr 21
+ ZL Sprint	0800Z-0829Z (CW), Apr 21 and 0830Z-0859Z (SSB), Apr 21 and 0900Z-0929Z (SSB), Apr 21
+ 222 MHz Spring Sprint	2300Z, Apr 21 to 0600Z, Apr 22
+ SKCC Sprint	0000Z-0200Z, Apr 22
+ Phone Weekly Test	0230Z-0300Z, Apr 22
+ A1Club AWT	1145Z-1300Z, Apr 22
+ CWops Test (CWT)	1300Z-1400Z, Apr 22
+ Mini-Test 40	1700Z-1759Z, Apr 22
+ Mini-Test 80	1800Z-1859Z, Apr 22
+ RSGB 80m Club Championship, SSB	1900Z-2030Z, Apr 22
+ CWops Test (CWT)	1900Z-2000Z, Apr 22
+ CWops Test (CWT)	0300Z-0400Z, Apr 23
+ CWops Test (CWT)	0700Z-0800Z, Apr 23
+ NCCC FT4 Sprint	0100Z-0130Z, Apr 24
+ Weekly RTTY Test	0145Z-0215Z, Apr 24
+ NCCC Sprint	0230Z-0300Z, Apr 24
+ K1USN Slow Speed Test	2000Z-2100Z, Apr 24
+ Tipalayo DX Contest	0800Z, Apr 25 to 1159Z, Apr 26
+ SP DX RTTY Contest	1200Z, Apr 25 to 1200Z, Apr 26
+ UK/EI DX Contest, CW	1200Z, Apr 25 to 1200Z, Apr 26
+ Helvetia Contest	1300Z, Apr 25 to 1259Z, Apr 26
+ Nebraska QSO Party	1400Z, Apr 25 to 0200Z, Apr 27
+ Florida QSO Party	1600Z, Apr 25 to 0159Z, Apr 26 and 1200Z-2159Z, Apr 26
+ UA1DZ Memorial Cup	1300Z-1859Z, Apr 26
+ BARTG Sprint 75	1700Z-2059Z, Apr 26
+ K1USN Slow Speed Test	0000Z-0100Z, Apr 27
+ QCX Challenge	1300Z-1400Z, Apr 27
+ ICWC Medium Speed Test	1300Z-1400Z, Apr 27
+ OK1WC Memorial (MWC)	1630Z-1729Z, Apr 27
+ QCX Challenge	1900Z-2000Z, Apr 27
+ RSGB FT4 Contest	1900Z-2100Z, Apr 27
+ ICWC Medium Speed Test	1900Z-2000Z, Apr 27
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 28
+ QCX Challenge	0300Z-0400Z, Apr 28
+ ICWC Medium Speed Test	0300Z-0400Z, Apr 28
+ ZL Sprint	0800Z-0829Z (CW), Apr 28 and 0830Z-0859Z (SSB), Apr 28 and 0900Z-0929Z (SSB), Apr 28
+ Phone Weekly Test	0230Z-0300Z, Apr 29
+ A1Club AWT	1145Z-1300Z, Apr 29
+ CWops Test (CWT)	1300Z-1400Z, Apr 29
+ Mini-Test 40	1700Z-1759Z, Apr 29
+ Mini-Test 80	1800Z-1859Z, Apr 29
+ CWops Test (CWT)	1900Z-2000Z, Apr 29
+ UKEICC 80m Contest	2000Z-2100Z, Apr 29
+ 432 MHz Spring Sprint	2300Z, Apr 29 to 0600Z, Apr 30
+ CWops Test (CWT)	0300Z-0400Z, Apr 30
+ CWops Test (CWT)	0700Z-0800Z, Apr 30
+ RSGB 80m Club Championship, Data	1900Z-2030Z, Apr 30

W2MMD Clubhouse Test & Repair Bench Equipment and Supplies

Another FREE Clubhouse Resource Available To All Club Members



A Special Thank You to
Chris AD2CS for donating
the equipment and
organizing these test
benches

- | | |
|---|---|
| <ul style="list-style-type: none"> • YiHua 948 11-in-1 Solder Station • Universal Screwdriver Set • PanaVise PCB vise with full tilt and rotate on parts bin base • 500 Watt Dummy Load • 100 Watt Dummy Load • Heathkit HD-1234 6-position Coax Switch with RG-213 jumpers • Hook-up Wire : <ul style="list-style-type: none"> ♦ 18 AWG stranded ♦ 22 AWG solid and stranded ♦ 24 AWG solid and stranded • Bird 4304A Thruline Directional Wattmeter • CMS BE-01 Battery Eliminator 1A/1.5-15V Power Supply • 12 AWG Red/Black Dual Stranded ZIP Wire • Simpson 260 Series 5 Analog Multimeter • CMS ESR-01 Equivalent Series Resistance Meter • Elenco DT-100 Diode & Transistor Tester • TekPower TP50SW 50A/13.8V Power Supply • Elenco XP-720 12.6VAC/5VDC/1.5-15VDC 3A/1A Power Supply • RSR Electronix Express RSR-3040 15VAC/5VD/1.5-15VDC 3A/1A Power Supply • BK Precision 1803D Frequency Counter • KKmoon MHS-5225 Digital Arbitrary Waveform Signal Generator • Exact 121 Analog Signal Generator • Greenlee DM-510A Handheld Digital Multimeter • HP 34410A Benchtop Digital Multimeter • BK Precision 1655 Variable isolated AC Supply | <ul style="list-style-type: none"> • CMS Dim Bulb Current Limiter - 100 Watt • CMS BDST-01 Signal Tracer • CMS CRTT-01 Gas-charged Voltage Regulator Tube Tester • Conar 224 Tube Tester • GW LCR-814 LCR Meter • Siglent SDS-1102CML+ Digital Storage Oscilloscope • DX Engineering Coaxial Cable Gripper and Stripper (RG-8U / RG-213) • DX Engineering Coaxial Cable Cutter, Trimmer, and Crimper (RG-8U / RG-213) • DX Engineering RG-8X Die Set for Coaxial Cable Crimper • Adjustable Wrench Set for Slotted/Recessed Round Nuts • Speedwox Miniature Box Wrench Sets, Metric and SAE • 69238 Nut Driver Set, Metric • 69239 Nut Driver Set, SAE • Velleman K-8115 Universal Component Tester • Anderson Powerpole® Connector Assortment • Anderson Powerpole® Crimping Tool • Heat Shrink Tube Assortment, cut lengths • Ring Terminal Assortment • Alignment Tool Set • Craftsman Wire Cutter/Crimper • Craftsman 6-piece Pliers Set • Laptop PC • Programming Cable Sets (2) • Test Lead Set • Oscilloscope Probe Set |
|---|---|



Sussex Amateur Radio Association

- APRIL 18, 2026 -

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Just 2–3 hours from Baltimore, Philadelphia, Wilmington, Washington, D.C., Virginia Beach, Eastern Pennsylvania, and Southern New Jersey. Tax-Free Shopping • Free Parking • More Value for Vendors & Guests

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Jon Zaimes AA1K

DMR Basics & Interstate System

Nick Fedirko N3YMS

Balun Basics: How To Build Your Own 4:1 and 1:1

Eric Hudson WG3J

Parks On The Air (POTA) Demo

Kerri Wright KB3WAV

Del Delfish N2NWK

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For Information

Contact Jamie, W3UC

(410) 202-7690

hamfestdelaware@gmail.com

NEW HAMFEST LOCATION:



Sussex Academy
21150 Airport Rd.
Georgetown, DE 19954

Gates open at 6:00 A.M.
Expo begins at 8:00 A.M.

Event Schedule

6:00 AM	Gates Open
7:30 AM	Tailgating
8:00 AM	Indoor Venue Opens
9:00 AM	FCC Testing - No Walk-ins/No Test Fee See www.radioelectronicsEXPO.com for pre-registration link and other event information

TALK-IN: SARA Repeater

147.090 MHz PL 156.7

Schedule subject to change

Local Hotels

Tru by Hilton Georgetown
(3.4 Miles)
302.515.2100

Microtel by Wyndham
(2.9 Miles)
302.396.9719

Quality Inn & Suites
(3.3 Miles)
302.339.8506

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www.radioelectronicsexpo.com

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The W2MMD Repeaters

2 Meter Repeater

Output : 147.180 MHz

Input : 147.780 MHz

Offset : +600 kHz - PL : 131.8 Hz

(Conventional FM plus C4FM Capability)

EchoLink : W2MMD-R

70 cm Repeater

Output : 442.100 MHz

Input : 447.100 MHz

Offset : +5 MHz - PL : 131.8 Hz

(Conventional FM plus C4FM Capability)

The above repeaters are both

located in Pitman, NJ

GPS : 39.728481°, -75.131088°

1.25 Meter Repeater

Output : 224.660 MHz

Input : 223.060 MHz

Offset : -1.6 MHz - PL : 131.8 Hz

Location : Sewell, NJ

GPS : 39.746738°, -75.077094°

SKYWARN™ Net

Sunday @ 1930 : 147.180 MHz Repeater

Gloucester County ARES Net

Sunday @ 2000 : 147.180 MHz Repeater

GCARC TechNet ZOOM Forum

Available Every Monday @ 1930 Hours

Join ZOOM Meeting Link :

<https://bit.ly/3K8bWwj>

Tuesday Afternoon 2M Net @ 1200 Hours

Monday & Thursday Night 40M Net

1900 Hours

7.165 MHz (Plus or Minus 10 kHz)

Thursday 2M Net @ 2000 Hours

All 2 Meter Nets Are Also On EchoLink :
W2MMD-R

Meeting Calendar

General Membership Meeting

Wednesday, April 01, 2026

1900 Hours

Pfeiffer Community Center

Simulcast Live on ZOOM

Meeting ID : 982 4039 1944

Passcode : 091084

Join ZOOM Meeting Link :

<https://bit.ly/4s67geS>

Board of Directors Meeting

Wednesday, April 15, 2026

1900 Hours

W2MMD Clubhouse

*“Ask not what your Club can do for you,
Ask what you can do for your Club”*

- KA2OSV

*“There’s More To Ham Radio Than
You Can Possibly Do!”*

- K3TS

*** Badges ***

Need a new or replacement badge
Contact “The Badge Man”

Chris Prioli AD2CS
chris@ad2cs.com